A Clinical Lecture

ON

THE EARLY DIAGNOSIS OF CARCINOMA OF THE PROSTATE.

DELIVERED AT THE LONDON HOSPITAL.

BY C. MANSELL MOULLIN, M.A., F.R.C.S.,

SENIOR SURGEON TO THE HOSPITAL.

ONE of the unexpected consequences of the work that has recently been done in connexion with the treatment of enlargement of the prostate is the discovery that malignant disease of the prostate is very much more common than was formerly believed. In the English textbooks of ten years ago cancer of the prostate is described as being of rare occurrence, and the chief symptoms noted are intense pain and profuse haemorrhage. As a matter of fact, it is unhappily very common, and in many instances there is neither a severe degree of pain nor profuse haemorrhage until the disease is far advanced. Of the last fifty cases of enlargement of the prostate in which I have been consulted, no less than ten were certainly malignant, and I am afraid two more will prove to be so, though I cannot say definitely yet. My experience may be exceptional, I admit. I do not mean that 25 per cent. of all cases of enlargement of the prostate are due to malignant disease, but only 25 per cent. of those which were brought under my notice. The majority of patients with enlargement of the prostate never consult any one at all, and probably most of the cases that were sent to me came because it was thought there was something unusual about them. Both considerations, of course, reduce the proportion; but, after making full allowance, cancer of the prostate cannot possibly be described as very rare. Others, too, have found the same. According to Young, cancer of the prostate is present in one-seventh of the cases of enlargement in men over 50 years of age. Lewissohn of Heidelberg found 18 cases of malignant disease out of 143, while Albarran and Hallé calculate that it is present in approximately 14 per cent. I have only met with one case of sarcoma growing in the prostate itself, and that was in a boy ten years old, so that the following remarks apply solely to primary carcinoma. Secondary cancer, which is also not uncommon, introduces so many complications that I shall leave it upon one side for the present.

Cancer of the prostate is always of the glandular type. It may be either hard or soft. The former is much the more common. In fact, I have only met with three instances of the latter, and Young, in his monograph on Cancer of the Prostate, in the *Johns Hopkins Hospital Reports*, does not appear to have met with any. The growth may originate either in a normal gland or in one that has already been the seat of enlargement for years past. In either case, it rapidly infiltrates the tissue around, flattening the outlying parts to some extent against the inner surface of the capsule, and only penetrates the capsule itself at a comparatively late period. The direction of the growth is almost always upwards, along the course of the ejaculatory ducts—which may be found plugged with columns of cancer cells—filling up the intervesicular space, and spreading from there along the lymphatics into the trigone of the bladder. From thence it grows outwards towards the walls of the pelvis on either side. The urethra may be compressed at an early date, or not, according to the position and direction of the growth, but it rarely becomes actually involved until late. The soft variety is an exception, as this very soon spreads into the neck of the bladder, sprouting out as a fungating, more or less villous mass. Two of the three cases under my care proved fatal from the bleeding that arose from this.

The internal iliac and then the other pelvic glands are the first to become infected. As these can hardly be felt, even when they are considerably enlarged, and not at all when the infection is only recent, it is very difficult to ascertain when this takes place. In many instances there is reason to believe that it is not till very late. Metastatic deposits, on the other hand, are sometimes found exceedingly early, while the original growth is still quite minute, and are especially common in the long bones and ribs. An excellent instance of this, not by any means unique, is recorded in the *Archives of the London Hospital Pathological Institute*, vol. ii, p. 175. Deposits of carcinoma were found in the lumbar, iliac, and bronchial glands, pleural lymphatics, marrow of right femur and lumbar vertebrae, secondary to a growth in the prostate, which was only discovered by making a microscopic examination. The gland was in no degree enlarged, and exhibited absolutely no naked-eye change on section. Further, no signs of infiltration could be detected in the surrounding tissues. The patient, who had been admitted into hospital for excruciating pains in the chest and limbs—so severe as to prevent him from standing—never complained of any urinary trouble until ten weeks before death, when retention suddenly occurred, followed by incontinence of urine and faeces.

The microscopic appearances in cancer of the prostate may be characteristic, but in many instances they are so varied and so complicated by those due to pre-existing enlargement and chronic inflammation that a very exhaustive examination is required before a definite opinion can be formed. There may be a large amount of stroma, with only a few elongated slit-like alveoli between the bundles, so that the whole is as hard as scirrhus; or there may be very little, and that of the most delicate description. The alveoli may be of the most irregular shape and size, and filled with cells until the central cavity is obliterated; or they may be perfectly uniform, lined with a single layer of cells, and enclose a rounded space as regular in shape as if the section had been made through a normal tubular gland. The cells may be cylindrical with a nucleus of moderate size near the base, or cubical, or quite irregular with nuclei of all shapes and sizes. There may be great intra-alveolar growths, indistinguishable from the proliferating intracystic growths so common in the hypertrophied gland, and in the same specimen there may be every gradation between the two extremes. In short, while in some cases the diagnosis with the microscope is perfectly straightforward, in others it is almost impossible, certainly from a single section, to make sure whether the growth is carcinoma, or merely one of those rapidly growing adenomata that occur so frequently in an enlarged prostate. A very good example of this difficulty is recorded by Young.[1] He describes how, in a case in which the cancerous process had grown down into the prostate, probably from one of the vesiculae seminales, it was only after a second series of sections and repeated examination that it became evident that what had been taken to be adeno-carcinoma of the prostate was in reality alveoli, packed with epithelial and polynuclear cells, a process of inflammation, and not carcinoma. In several instances under my own care I have found the same difficulty. In many parts the growth appeared to consist almost entirely of tubules, perfectly uniform in shape and size, with no appreciable difference from the normal ones, yet spreading into and under the trigone of the bladder, and even between the muscular bundles. Nor could I find any evidence of infiltration of the stroma by epithelial cells. Albarran and Hallé have applied the term "epithelioma adenoid" to some of these appearances which suggest the beginning of malignant formation in lobules apparently purely adenomatous. Whether such a borderland as diffuse adenoma is advisable or not, it is quite evident that at present a considerable number of cases occur which are very doubtful in character; and some, of which the one described in the *Archives of the London Hospital Pathological Institute* is an instance, in which a positive opinion is impossible without a prolonged investigation. Unfortunately this detracts considerably from the value of Young's proposal, that in doubtful cases a section should be made and examined on the spot, while the operation for removal is proceeding; for it is in just those cases in which the clinical diagnosis is most difficult that the microscope is most likely to fail.

The age of my patients ranged from 45 to 79 years, the majority being between 58 and 65. The duration of the symptoms before they came to see me varied from less than a month to over twenty years. This, of course, depended on whether the cancerous growth originated in a gland otherwise normal, or, as more frequently happens,

in one that was already the seat of some degree of enlargement. Whether the growth was hard or soft, the symptoms were the same in character as those present in the ordinary non-malignant form of enlargement—increased frequency of micturition; delay at the beginning, dribbling at the end; a certain degree of urgency; pain, which in the later stages sometimes became very severe, and haemorrhage. The distinctive feature was the rapidity with which these symptoms progressed when once they had set in, and the degree of severity to which they attained in a very short time, without there being cystitis or any similar cause to account for it.

Increased frequency of micturition was present in them all. In some it had been present for years, in others it had begun quite recently; but there was this feature about it—a feature the development of which one of my patients who had already suffered from increased frequency for some time himself noted to me—that the disproportion between the frequency during the day and during the night was not nearly so great as it usually is in cases of simple enlargement, and that the act of micturition did not give the customary degree of relief. As a rule, if there is no cystitis or calculus in a case of enlargement of the prostate, the act of micturition is followed by a period of comfort, which lasts for a longer or shorter time. In carcinoma it is not; relief is not complete. The desire is always there, though it may be less immediately after the completion of the act, and this naturally leads to a very rapid increase in the number of times. A patient with non-malignant enlargement of the prostate has often risen once or twice every night for many years before the frequency becomes so great as to suggest the propriety of seeking advice. In malignant disease, whether it originates *de novo* or is consecutive to enlargement, the frequency often becomes as great in as many months.

Another point of some value in connexion with this is the effect produced by passing a catheter. The passage of a catheter for the first time in a case of enlargement of the prostate is always a serious matter, but unless there is some exceptional feature present, such as unusual difficulty causing haemorrhage from laceration of the mucous membrane, it is not followed by any local irritation. The patient has not to pass water more frequently. On the contrary, perhaps because the bladder has been emptied more thoroughly than usual, he can often wait a longer time. This is not the case when carcinoma is present. Nearly always it will be found that in these circumstances there is a definite increase in frequency afterwards which only subsides at the end of twenty-four hours; and if an attempt is made to treat such a case by the habitual passage of a catheter the last thing at night, it will very often be found that the symptoms are aggravated rather than relieved. Much, of course, depends upon the exact position of the growth, but in no case is it very long before the hyperaemia that surrounds a growing focus of carcinoma succeeds in reaching the urethra, and making its lining membrane more sensitive.

Pain, when it occurs in association with enlargement of the prostate, is always serious. In the ordinary form of enlargement there is no pain. When it does set in, it is due to the presence of some complication, such as cystitis or calculus. Sometimes under these conditions pain may be very severe, but whatever the degree it is always associated with the act of micturition, and almost invariably is described as shooting down the urethra to the end of the penis. When the enlargement is due to chronic inflammation, whether tuberculous or gonorrhoeal, pain is not uncommon, but this too is associated with micturition, and is only severe when there is ulceration at the neck of the bladder. In these cases, however, there is often besides this a sense of uneasiness and fullness in the perineum. The patient will volunteer the statement that he often has a certain amount of discomfort there, and that this is relieved by firm continued pressure, but it is rarely spoken of as actual pain. In cancer, so long as the growth is small and placed so that there is some thickness of normal prostatic tissue around it, there may be no pain. As, however, the growth enlarges and begins to stretch, or still more to involve the capsule, pain seldom fails to make itself felt. But this pain differs in many respects from that which is present in cases of cystitis or calculus. It is constant day and night, and is referred to something deep in the perineum, almost in the rectum, so that the patient imagines there is something pressing forcibly against the wall of the bowel. It bears no relation to micturition, and though it may spread down the urethra even to the glans, it is not confined to that region, nor felt most severely in it. Later still, when the malignant growth has spread beyond the capsule, and has begun to involve the structures around, the pain may become agonizing, radiating down all the branches of the sciatic plexus. One patient came to consult me because of sciatica, which nothing seemed able to cure, and which was growing worse every day. It was bilateral, but worse upon the right side, and was continuous night and day. The prostatic symptoms from which he suffered he regarded as of no importance, but on examining him per rectum, the cause was only too plain. There was an extensive growth of stony hardness spreading up from the prostate, and firmly fixed to the wall of the pelvis on either side. Pain such as this is characteristic, but unfortunately when it occurs the diagnosis is usually already obvious, and the only treatment possible is palliative.

Haemorrhage is not an early symptom of carcinoma of the prostate, and it is such a common occurrence in connexion with the simple form of enlargement, that it is only under special circumstances that it can be considered a symptom at all. In the hard variety of carcinoma, which is the most common, there may never be any haemorrhage. It is usually present when the growth has ulcerated, but the quantity is rarely large. As usual when the source of the bleeding is at or near the neck of the bladder, the blood precedes, or more often follows, the stream of urine. It is not mixed with the urine, but this is equally true of many other lesions in the same locality. Haemorrhage is only characteristic when it is causeless, frequent, and profuse, like that which occurs in villous tumour of the bladder. The soft form of carcinoma, when the growth has spread into the bladder, resembles this in many ways. It is quite as vascular, and the walls of the vessels are equally delicate. The least injury, even the contraction of the bladder wall around it, is sufficient to make it bleed. When the bleeding once begins, it is almost impossible to check it, for everything that is done only injures another portion of the growth, and makes that bleed. In two out of the three cases of soft carcinoma under my care, the haemorrhage proved fatal, in one directly, in the other from loss of strength entailed by the continued drain of blood.

The physical signs in the early stages of carcinoma of the prostate are vague and ill-defined. If the growth originates deep in the substance of a gland that is enlarged already, they may be altogether wanting for a time. As in the case I mentioned before, it sometimes happens that they remain latent throughout. As a rule, however, by the time the symptoms have become sufficiently severe to induce the patient to seek advice, the physical signs are plain and well marked. The stony hardness of the prostate, when examined from the rectum, is the most striking feature of the ordinary variety of carcinoma. In the early days this may be limited to one or more areas, the intervals between which are still soft and elastic. Later, these areas fuse together, and the whole gland becomes intensely hard, inelastic, and unyielding. In chronic prostatitis, and in that form of fibroid enlargement which resembles it so closely, the gland is often harder than natural, but it very rarely attains the peculiar stony feel which characterizes the common form of carcinoma. The finger can make no impression upon it. The soft variety of cancer is entirely different. I have not met with any instance in which the growth was still limited to one portion of the gland. In none of the cases under my care was there any material increase in size on rectal examination. The surface was uniformly soft and pulpy, not elastic or fluctuating; and the margins were ill-defined, so that the upper border of of the gland could not well be distinguished from the adjacent portion of the trigone. The gland was flatter than normal. It had quite lost its natural rounded contour, and instead of meeting the finger at once, as it entered the rectum, the prostate had, as it were, to be felt for. This, of course, is what might be expected from the growth of a soft carcinoma enclosed on all sides, except towards the bladder, in an unyielding fibrous capsule. The firm normal tissue of the prostate is replaced by a much softer substance, which spreads in the direction of least resistance, and leaves the capsule unsupported.

The shape of the prostate when it is the seat of malignant disease may be as characteristic as the consistence, but here again the same reservation must be made. The alteration may make its appearance early and be well marked, or there may be no alteration at all, even to the end. In the simple form of enlargement the gland, as it increases in size, pushes all the surrounding structures to one side. It swells out towards the rectum as an elastic rounded mass, very variable in shape, perhaps studded on the surface with bossy elevations, differing from the rest in consistence, but the contour remains well defined, even in the small fibroid variety. The upper border is convex from side to side, or, if concave from the extreme upward growth of the two lateral lobes, it is steeply cut and rounded off. At the sides the margins of the gland are clear and distinct. The trigone beyond is free, or if there is a growth spreading into it, it forms a defined invading mass, not a general infiltration. Malignant disease, on the other hand, infiltrates everything. Almost always the first part to become affected is the tissue surrounding the ejaculatory ducts, so that what feels to the finger like a horn of growth spreads upwards on either side towards the vesiculae seminales, and at last spreads into them. Then the intervesicular space becomes thickened—this is much better appreciated when there is an instrument in the bladder at the same time. In a little while the change involves the tissues on either side and around the base of the prostate. The margins of the gland can no longer be defined. Hard cords can be felt running up towards the walls of the pelvis, and very soon the prostate becomes fixed and immovable. In the later stages of the disease, when it is advanced, the diagnosis is easy. In the earlier ones the difficulty may be very great; and, as it is imperative to make certain whether cancer is or is not present, it is always advisable to examine the patient under an anaesthetic in the lithotomy position, while firm pressure is being made over the pubes, so as to force the prostate down into the perineum.

The cystoscope is, unfortunately, not of much service in the early diagnosis, though it gives valuable information later. Much more can be learnt from the passage of a catheter, especially if a rectal examination is made at the same time, so as to form some conception of the condition of the intervesicular space.

It is always a matter for grave suspicion if the characteristic symptoms of prostatic enlargement have made their appearance suddenly—within a twelvemonth, for example—and if on passing a catheter in expectation of finding a large amount of residual urine, an ordinary olive-pointed instrument slips in easily and only a few drops come away. It means that all the ordinary symptoms of prostatic enlargement are present without any overgrowth of the median portion or of the lateral lobes to account for them. Perhaps this—the disproportion between the symptoms of which the patient complains and the physical signs that are found on examination—is the most significant point of all in the early diagnosis of cancer. From what the patient says about himself, a well-marked case of prostatic enlargement with residual urine is expected. What is found is a very slight degree of enlargement with nothing that will explain the frequency of micturition. If in such a case the patient complains of a constant pain in the perineum; or if there is a nodule of stony hardness in the prostate, or an extension of the growth towards one of the vesiculae seminales; or if when a sound is introduced into the bladder and the beak is reversed, there is definite thickening of the intervesicular space, the diagnosis hardly admits of doubt.

With regard to the question of treatment there is very little to be said. Suprapubic enucleation should never be attempted for cancer. Except by accident the whole growth cannot be removed in this way. The operation is not one suited to cancer. Recurrence *in situ* is almost invariable, and from thence the growth spreads to the suprapubic wound, or involves the orifices of the ureters. The only method that holds out any hope of success is that devised by Young, in which the whole of the prostate with its capsule intact, the vesiculae seminales, and the adjacent portion of the neck of the bladder are removed *en masse* through the perineum.

REFERENCE.

[1] *Johns Hopkins Hospital Report*, vol. xiv, p. 288.

An Address

ON

THE DIAGNOSIS AND TREATMENT OF SOME COMMON INFLAMMATORY AFFECTIONS OF THE EYE,

FROM THE STANDPOINT OF THE GENERAL PRACTITIONER.

DELIVERED BEFORE THE STRATFORD DIVISION OF THE BRITISH MEDICAL ASSOCIATION,

BY E. E. HENDERSON, M.B., B.C., F.R.C.S.,

OPHTHALMIC SURGEON TO THE WEST HAM AND EAST LONDON HOSPITAL.

In discussing the differential diagnosis and treatment of the common inflammatory affections of the eye from the standpoint of the general practitioner, I propose to limit myself to three affections—namely, conjunctivitis, iritis, including cyclitis, and acute glaucoma.

All three are accompanied by at least two of the cardinal symptoms of inflammation—redness and pain—with the addition of one other, the peculiar property of the region affected, photophobia. This last symptom is probably somewhat inaccurately named, as the nerve affected is the fifth nerve, which is not sensitive to light. The shrinking from light displayed is due more to exposure to the air and variations of temperature than to any direct action of the light rays.

Well marked cases of these three affections should present little difficulty in diagnosis, but in the early stages, before some of the more characteristic symptoms have had time to make their appearance, a most careful examination of the affected organ may be necessary before arriving at a satisfactory conclusion, and it is to be remembered that any mistake in treatment may be followed by the most disastrous consequences.

Recognition of Ciliary Injection.

In the differential diagnosis between these three affections the presence or absence of ciliary injection plays a most important part, I therefore propose briefly to recapitulate the points that distinguish ciliary from conjunctival injection.

In conjunctival injection there is present a superficial network of larger and smaller vessels, readily movable with the conjunctiva. The colour of the injection is a vivid scarlet or brick red, and cannot, owing to the freedom of the collateral circulation, be made to fade on pressure with the finger. This form of injection is most intense on the lids, and diminishes towards the cornea.

Ciliary injection, on the other hand, occurs as a rose-red or pale-violet zone surrounding the cornea, in which it is impossible to recognize clearly the individual vessels, and which is not movable with the conjunctiva. In the more severe cases of ciliary injection a coarse network of vessels at a greater distance from the cornea is also visible; these may be distinguished from conjunctival vessels by their hazy appearance, violet colour, and immobility relative to the conjunctiva. Owing to the numerous anastomoses between both sets of vessels, severe inflammatory affections of the uveal tract are always accompanied by a certain amount of conjunctival injection, but the essential point is to recognize the existence of the ciliary injection, as this always indicates inflammation of some structure deeper than the conjunctiva.

Symptoms and Treatment of the Ordinary Forms of Conjunctivitis.

The subjective symptoms will naturally depend on the severity of the case, but it may be stated that severe pain is only met with as the result of some complication, such as ulceration of the cornea. Complaint will be made of discharge from the eyes, with itching and burning sensations, generally becoming worse towards night. Vision is interfered with by the passage of flakes of discharge in front of the cornea. The discharge tends to glue the lids together during sleep.

On examination the surgeon finds that conjunctival injection is present, confined at first to the palpebral surface, and most marked in the lower cul-de sac.

For clinical purposes the various forms of conjunctivitis may be arranged in four main groups, in accordance with the presence or absence of the following symptoms:

1. The nature of the discharge, muco-pus or pus.
2. The presence of a membrane.
3. Chronic irritation with little or no discharge.
4. A miscellaneous group, in the course of which ulceration and vascularization of the cornea are prone to occur, and not characterized by the presence of discharge.

In any case in which discharge is present a bacteriological examination should be made. Its results, indeed, are frequently disappointing, nor is this surprising when the exposed situation of the conjunctiva is considered. Nevertheless, the great importance of the recognition of the presence of the gonococcus, streptococcus, or the bacillus of diphtheria, makes the examination of the discharge or membrane of great importance in all the more severe cases.

There are three main principles underlying the treatment of all varieties of conjunctivitis: First, the due recognition of the contagious nature of the discharge. This must be impressed on the patient and his friends or attendants. Nothing that has been contaminated by the discharge must be allowed to be used by any one else. Should some of the discharge be conveyed by a splash or in some other way to the eye of an attendant or surgeon, it must be immediately removed by free irrigation with 1 per cent. boric acid lotion, and the irrigation should be followed by the instillation of a few drops of 20 per cent. protargol. In the more severe purulent cases the patient should be completely isolated, and steps taken to protect the second eye, should only one eye be affected when the patient comes under observation.

The second main principle is to provide for the due removal of all secretion, and to prevent the gumming of the lids, which by closing the palpebral fissure converts the conjunctival sac into a closed cavity.

Thirdly, we attempt to destroy the vitality of the micro-organisms that are producing the disease by the application of certain chemical agents.

Acute Purulent Ophthalmia.

The most frequent cause of purulent ophthalmia is the gonococcus, and if early treatment is not successfully adopted the loss of the affected eye is an event only too probable.

If, as is frequently the case, only one eye is affected, the surgeon should first examine the apparently sound eye, and should this show no sign of inflammation, take immediate steps to protect it from contamination. This is best done by the use of a Buller's shield, but until this can be procured or improvised the sound eye can be efficiently protected by means of cyanide gamgee tissue securely fixed with a bandage. When a Buller's shield is employed, constant attention must be directed to the strapping over the side of the nose, and a vent-hole should be made near the outer part of the eyebrow by inserting a small piece of drainage tube. The shield must not be removed until all discharge from the affected eye has ceased. The next step is the careful removal of all discharge from the affected eye by gentle irrigation with warm 1 per cent. boric acid lotion. The surgeon or attendant should always wear protecting goggles while engaged in the treatment of any of these severe ophthalmias. As soon as the eye is sufficiently clean the lids should be gently separated and the cornea examined. Should there be any doubt as to the presence of any ulceration, a drop of fluorescine solution is instilled. If the cornea is as yet unaffected, the lids are gently inverted without allowing anything to come in contact with the cornea—the slightest abrasion being sure to become infected, with disastrous consequences to the eye—and painted with a 2 per cent. solution of silver nitrate by means of a wisp of absorbent cotton wrapped round a glass rod. If the conjunctiva is very brawny and oedematous, this painting had better be omitted. There is no necessity to neutralize the excess of silver solution; it is sufficient to mop the conjunctiva with a pledget of wool.

The patient is kept in bed and provided with some absorbent cotton and a basin of warm boric acid lotion, and instructed to wipe away the discharge as fast as it is secreted. Every hour or two during the day and at least every four hours during the night the conjunctival sac is thoroughly irrigated with the same lotion from an undine by the attendant. A little boric acid ointment should be smeared on the lids to prevent them from sticking together.

The silver application should also be repeated daily, the strength and frequency of the applications being gradually diminished as the case improves.

If the cornea becomes affected, 1 per cent. atropine should be instilled every four hours, and if the discharge is still copious and an actual ulcer has made its appearance, 2 per cent. silver nitrate solution should be stippled into the base of the ulcer, but if the discharge has nearly ceased, cauterization with pure carbolic or the galvano-cautery will be advisable. If the ulcer is obviously about to perforate, as shown by the bulging of Descemet's membrane, a small perforation should be made so as to allow the aqueous to escape slowly, and thus prevent a large perforation with prolapse of iris. The later treatment of eyes in which perforation of the cornea has taken place and left a prolapsed iris adherent to the cornea falls outside the scope of this paper; it is sufficient to state that unless operative steps to free the iris or make an iridectomy are taken the eye will be lost through secondary glaucoma.

Ophthalmia Neonatorum.

Ophthalmia neonatorum, which is also in the majority of cases due to the gonococcus, demands similar treatment, but as both eyes are always affected there is no need to protect one. This affection is not so severe as the disease in adults, and if the case is seen before any affection of the cornea, a successful result should usually be obtained. A unilateral discharge of pus is occasionally met with in infants, due to an infection of the lacrymal sac. If keeping this squeezed out and the eye cleansed with a boric acid lotion fails to effect a cure, it is generally easily remedied by the passage of a fine lacrymal probe down the nasal duct, after dilatation of the canaliculus.

The first examination of an infant with ophthalmia neonatorum must be conducted with extreme gentleness, and should there be any reason to suspect that the cornea is affected it is safer to administer a general anaesthetic than to run any risk of increasing the damage owing to the struggles of the patient.

This affection is still, I regret to say, one of the commonest causes of irremediable blindness, and I am convinced that if Credé's method of applying silver nitrate to the eyes of all newly-born children, when there is any reason to expect the possibility of infection, was systematically carried out, it would become one of the rarest.

Muco-purulent Ophthalmia.

Muco-purulent ophthalmia may be due to a great variety of organisms, but the general principles of treatment conform to the account just given. It is generally unnecessary to repeat the application of silver, but the course of the affection is undoubtedly shortened by painting the lids with a 1 per cent. solution of silver nitrate at the first visit. The pain of the application may be much diminished by the use of cocaine, but this is inadmissible in the purulent affection from its damaging effect on the corneal epithelium; if in addition the lids are once more everted a quarter of an hour after the application, and the coagulated epithelium gently removed with some absorbent wool, no lasting irritation will be caused.

A lotion of 1 per cent. boric acid with 0.5 per cent. sulphate of zinc and some boric acid ointment are prescribed. The patient is instructed to lie on his back with the head on one side so that a little pool of lotion can be retained between the nose and the closed lids. A dozen drops are then placed in this position by means of a pipette, the patient meanwhile keeping the lids closed. He then with the hand draws the lids away from the globe, so that the lotion runs well into the fornices. After drying the superfluous lotion with some absorbent wool, a little of the ointment is smeared on the lid margins. This should be repeated half a dozen times a day at first, gradually diminishing the number of applications as the discharge ceases. If during the progress of the disease an ulcer of the cornea makes its appearance, it should be treated in the way already described, but under no circumstances should an eye in which discharge is present be covered with any dressing.

Membranous Conjunctivitis.

Nearly all the micro-organisms that cause muco-purulent ophthalmia may at some stage of their course, in suitable subjects, produce a membrane. It is, however, chiefly on account of the diphtherial and streptococcal affections that it is necessary to separate this class of case. Membranous conjunctivitis occurs chiefly in children, and shows all grades of severity, the more severe cases being accompanied by considerable constitutional disturbance. The pre-auricular gland is swollen, and even occasionally suppurates. Although a bacterial examination should be made in every case it is not advisable to wait for the results of this before using antitoxin. Until a definite bacteriological report has been obtained isolation should be insisted on exactly as in dealing with faucial diphtheria. The local treatment is exactly the same as that for purulent ophthalmia, but painting with silver is not to be resorted to.

Chronic Irritation of the Conjunctiva with little or no Discharge.

In nearly all these cases the source of irritation will be found in some error of refraction or muscular anomaly. If proper correction of these defects does not entirely remove the symptoms, I have seen considerable improvement result from the instillation twice daily of a 15 per cent. solution of protargol. It is to be noted that this or any other preparation of silver is on no account to be used for more than fourteen days for fear of producing silver staining of the conjunctiva.

The mild catarrhal conjunctivitis to which gouty subjects are liable is not benefited by energetic local treatment. Rest and protection from wind and dust, with in some cases the occasional instillation of a drop or two of a solution of cocaine (0.5 per cent.) are the best methods of dealing with this affection.

Angular Conjunctivitis.

There is one other form in this group to which I wish to draw attention, and that is angular conjunctivitis. This has two peculiarities. First, it is almost the only form of conjunctivitis in which the clinical appearance is characteristic of the special organism at work (the diplobacillus of Morax-Axenfeld); and, secondly, it is almost the only form of conjunctivitis which in the absence of suitable treatment tends to persist indefinitely. The inflammation is confined chiefly to the lid margins, with accompanying excoriation of the skin, especially marked at the canthi. The boracic lotion combined with zinc sulphate, applied as described in the treatment of muco-purulent ophthalmia, readily effects a cure.

Trachoma and Phlyctenular Ophthalmia.

The only common forms of conjunctivitis in my fourth group are trachoma and phlyctenular ophthalmia. Time will not allow of the discussion of the methods of treatment suitable for these diseases and their complications.

Tubercle and syphilis rarely attack the conjunctiva. Inasmuch as when they do they usually produce ulceration, they should not be confused with the forms already described. Finally, it must be remembered that certain drugs, of which the chief are atropine and eserine, may occasionally produce a condition of the lids that resembles erysipelas.

Iritis.

The iris, representing as it does the most anterior portion of the uveal tract, seldom passes through an attack of acute inflammatiom without some slight involvement of the ciliary body. In cases in which this involvement is very severe it is customary to speak of irido-cyclitis, but it must be understood that there is no very hard and fast line to be drawn between the two diseases.

Iritis is usually attended with very severe pain, and it is this which usually brings the patient before the surgeon.

On examination, it will be seen that ciliary injection is present, the pupil is constricted, and its edge is irregular. The reaction to light is sluggish, even before any synechiae have had time to form, and the colour and texture of the iris is altered. As during the acute stage iritis is usually unilateral, these points are easily determined by comparison with the other eye. Hypopyon and hyphaema are rarely met with in simple iritis. If there is much involvement of the ciliary body, the altered condition of the intraocular fluid manifests itself by the presence of deposits on the back of the cornea. As a result of the albuminous nature of the aqueous humour in these inflammations, filtration is so seriously interfered with that the intraocular tension may be so increased as to endanger the eye in the absence of operative interference. These symptoms, compared with my previous remarks on conjunctivitis, sufficiently differentiate the two affections.

Before discussing the diagnosis of iritis from glaucoma I propose to say a few words about the etiology and treatment of iritis. Sepsis, syphilis, and tubercle are the main causes of iritis. Sepsis—under which heading I include gonorrhoea—is by far the most important of the three. Apart from gonorrhoea, the most frequent source of septic infection is to be found in the mouth, in the shape of pyorrhoea alveolaris and soft caries of the teeth. These affections are, as is well known, responsible for other diseases, and, as Hunter pointed out, individual patients exhibit great variations at different periods in the degree of their immunity. Iritis is usually accompanied in this class of case by cyclitis, and it is not uncommon to meet with a patch of inflammation in the choroid. The gonorrhoeal type usually shows much vascular engorgement, and is prone to the early formation of synechiae.

Syphilitic iritis manifests itself in two forms. The commonest is a simple plastic iritis usually seen before the end of the first year. This form may also be seen in congenital syphilis, and usually accompanies interstitial keratitis. A second and much rarer form is seen as a late secondary or early tertiary form, and is characterized by the formation of yellowish-red nodules near the pupillary and ciliary borders of the iris but not in the intermediate zone.

Tuberculous iritis occurs in a miliary and a conglomerate form. In appearance it resembles the late form of syphilitic iritis, from which it is to be distinguished by the history and the failure of specific treatment. There is also rather less general iritis.

I have not mentioned rheumatic iritis, and must confess to a certain amount of disbelief in its existence. It has never been found to accompany acute rheumatism, and the rheumatoid pains complained of may well be due to a mild septic infection.

The treatment of iritis must be local and general. The essential of the local treatment is to dilate the pupil and to keep it dilated. For this purpose I am in the habit of using atropine ointment, 1 per cent. combined with 0.5 per cent. cocaine, for the first three days. The cocaine acts as a direct stimulant to the sympathetic nervous mechanism of the pupillo-dilator fibres, and so increases the effect of the atropine, which acts chiefly by diminishing the hyperaemia and paralysing the constrictor pupillae. The use of cocaine is deleterious to the corneal epithelium, and should be discontinued as soon as the maximum dilatation is obtained. The ointment should be employed every four hours at first, later, as the disease yields to treatment, atropine without cocaine, applied two or three times daily, will suffice to keep the pupil dilated. Hot fomentations or bathings, or dry heat supplied from a Japanese muff warmer, diminish the pain and act beneficially. In all severe cases a couple of leeches applied to the temple are of great service. If high tension persist, paracentesis should be done, and, if necessary, repeated. The general treatment is that of the condition to which the iritis is due. All sources of sepsis, and more especially the mouth, must receive energetic treatment.

The treatment of the sequelae in the shape of numerous synechiae is mainly operative, and the discussion of this point and the value of prophylactic iridectomy in recurrent iritis would occupy too much time.

Acute Glaucoma.

The disease with which acute glaucoma is most liable to be confused is iritis, and, as the treatment necesary for the latter—namely, the dilatation of the pupil with atropine—would infallibly destroy an eye affected with glaucoma, it is evident that the diagnosis is of the greatest importance.

What are the main points of difference?

1. *History.*—In even the most acute cases of primary glaucoma there is usually a history of previous symptoms

in the shape of transient attacks of pain accompanied by misty vision, with haloes round the lights. The acute attack is accompanied by very severe pain, often causing actual vomiting, and therefore liable to be mistaken for a bilious attack. The onset is always sudden, frequently associated with some condition, such as alcoholic indulgence, that leads to raising of the general blood pressure. Vision deteriorates with such rapidity that at the end of a few hours hand movements only are distinguished.

2. *Objective Signs.*—The eye is intensely congested with marked ciliary injection. The cornea is steamy and defective in sensibility. The anterior chamber is shallow. The pupil is semidilated, with regular outline, generally rather oval in shape, with the long axis vertical. It will be remembered that in acute iritis the pupil is generally small, with irregular outline. Finally, the intraocular tension is very considerably increased. Examination of the other eye may showed a cupped disc.

If due attention is paid to these points, there should be no difficulty in the diagnosis of ordinary primary acute glaucoma. The cases in which difficulty is found are those of glaucoma secondary to cyclitis or to the obstruction to the intraocular flow due to adhesions of the iris. In these the smallness and irregularity of the pupil, combined with the deep anterior chamber, and possibly the presence of punctate deposits on the cornea, will generally indicate the nature of the complaint.

In all cases of acute primary glaucoma, iridectomy should be performed as soon as conveniently possible. It would take us too far to deal with the proper method of performing this operation, nor do I think it is an operation that should be undertaken by any one who is not likely to have the opportunity of performing more than one or two. It is certainly one of the most difficult that the ophthalmic surgeon is called upon to do.

Is there anything to be done while arrangements for operating are being made? Hot bathing, instillation of a solution of eserine sulphate 1 per cent. every two hours may be successful in reducing the tension; at any rate they should be tried, and a brisk saline purge administered. In all cases in which the intraocular tension is much raised, I prefer immediately before doing an iridectomy to first lower the tension in the posterior chamber by puncturing the eye behind the equator with a Graefe knife. This obviates one of the worst risks of the operation, namely, the dislocation of the lens forwards as a result of the sudden lowering of the tension in front. Where possible this may well be done a few hours before the actual iridectomy. It is simple of performance, and cocaine affords sufficient anaesthesia. For the iridectomy itself a general anaesthetic will be required.

Remarks
ON
PARTIAL THYROIDECTOMY,
WITH SPECIAL REFERENCE TO EXOPHTHALMIC GOÎTRE, AND OBSERVATIONS ON 113 OPERATIONS UNDER LOCAL ANAESTHESIA.

By T. P. DUNHILL, M.D., B.S.,
JUNIOR SURGEON TO IN-PATIENTS, ST. VINCENT'S HOSPITAL, MELBOURNE.

During the past twenty months I have performed the operation of partial thyroidectomy 113 times, in the great majority of cases for exophthalmic goître. During that time, watching the cases before and after operation—sometimes through successive operations—certain conclusions have forced themselves upon me.

The question, "Should exophthalmic goître be treated surgically?" has been answered by the patients themselves in about one half of the cases, and by medical practitioners in the other. Every case had been treated medically until it had become apparent to the physician or the patient that improvement was not taking place. In many of the cases the condition of the patient had become extremely critical.

In cases which are definitely not improving under medical treatment there can be no question as to the necessity for surgical interference, if one believes that the disease is a thyrotoxicosis, and that the removal from the individual of a large part of the poison-producing body will enable a state of equilibrium as regards the output of thyroid secretion to be regained and maintained. While not for a moment minimizing the risks of the operation (which are very great, and may easily lead to disaster), it may be said that the operation is as safe as any major operation in surgery. I believe that there is no need to fear death either at or following operation, provided it is performed under local anaesthesia.

Difference in Type.

Differences in degree and type with corresponding differences in character and rapidity of response to operative treatment may be noted, and I have begun to classify cases of thyrotoxicosis from the point of view of operation as follows:

1. Those cases which have all the classical signs—namely, goître, exophthalmos, tachycardia and palpitation, and tremor—but are still able to do some work. The tachycardia is constant and palpitation frequent, especially with a little extra exertion. They may look well or be greatly emaciated, but they have no organic heart lesion and no oedema. Frequently there is complete amenorrhoea. Some patients suffer much from diarrhoea. The appetite is usually ravenous.

2. Cases which have all the classical signs but in which the symptoms have progressed until organic changes have taken place in the heart muscle; or there is dilated heart with inefficient valves. The patient may have an irregular, intermittent pulse. Oedema is present, perhaps only a little on walking about, perhaps constant in whatever part of the body is dependent. In one case it was also marked in the face, where it had been present for some months, on the side which was lowermost during sleep. In other cases there has been simply oedema of the feet and legs on walking, the oedema disappearing on lying down.

3. Cases in which the signs are incompletely developed, but often presenting great toxaemia. There is very little enlargement of the thyroid gland but very marked tachycardia and a constant sensation of smothering. Exophthalmos and characteristic tremor are not present. One cannot call this class of case "exophthalmic goître"; the term "thyrotoxicosis" is much more suitable.

4. Cases sometimes described as secondary exophthalmic goître, in which from the history it would appear that the goître preceded the thyrotoxic condition. The thyroid gland is usually very much enlarged, and the enlargement may be central or unilateral. If the patient is put to bed, it is found that tachycardia is not always present, but palpitation supervenes so constantly on the slightest exertion that the patient is practically invalided. Owing to the size of the goître and the long period during which it has been present, there is generally some pressure on the trachea, causing dyspnoea on exertion, and often during sleep—frequently, indeed, preventing sleep. There is sometimes some prominence of the eyes, and there is usually tremor.

Response to Operative Treatment.

Cases of the first class respond rapidly and almost completely to operative treatment. They have not lost their recuperative power, and, though they are ill and have all the classical symptoms of the disease, when the poisoning body is removed they at once feel a tremendous difference in themselves, and in a few weeks are almost—I might say completely—well. One woman says she can now do all her household washing and ironing, but scrubbing causes some slight return of the palpitation. Another cooks for her husband and two children, does all the household work, and, as well, teaches six music pupils. Two others, who had been completely invalided, are farmers' wives; each does the housework and a great deal of work incidental to the farm as well. This is the stage at which the operation should be performed, as practically complete recovery can be promised, and the period of convalescence is short.

If the patients have gone beyond this stage and belong to the second class—if there are objective signs of heart failure—the rapidity and completeness of cure varies. All the textbooks and articles which I can find speak of cases of this class as too advanced for operative interference presumably for two reasons: First, because the patient

are too ill to be cured; and, second and chief, because the operation in such cases would be too dangerous. The statement that they are too far advanced for operation is not true. I would go so far as to say that no case, unless almost moribund, is too far advanced to obtain immense relief from operation. The extent of relief is in inverse ratio to the extent of the organic heart lesion. Under local anaesthesia, the danger of the operation, even in the most advanced cases, is practically *nil*. Sometimes it is most difficult to tell whether or not there is actually organic heart disease. I have seen a case with oedema of the feet and legs, with the apex beat outside the nipple line, with markedly irregular pulse, with eyes so prominent that she had suffered from corneal ulceration twice, and who had the greatest difficulty in getting to town from the western district on account of the oedema and dyspnoea. This patient left the hospital with a regular pulse of 80. She is a farmer's wife, and now does her own housework, and writes me that she always feels well. One would have felt certain that this woman had myocarditis with a permanently damaged heart.

The most that cases in this class can hope for is great improvement without absolute cure, but it is quite worth while to operate to obtain this result, since great relief can always be promised. Local anaesthesia is essential. The following is a good example of the relief of symptoms:

The patient, a nun, had been under constant medical treatment for three years, but had grown steadily worse. When I saw her the face was asymmetrical with dependent oedema on the side on which she had been lying; the lower limbs also were oedematous. The pulse was most irregular and rapid. She had a large three-lobed goître, and suffered with neuralgic pains at the apices of the lateral lobes and up into the ear, which prevented sleep. The other symptoms were those usual in a bad case of exophthalmic goître. It was the oedema and the pulse which gave the interest to the case from the standpoint from which we are now viewing it. I kept her in hospital three weeks, and then sent her back to her convent. In the meantime I operated on another nun from the same convent, who had been ill with goître for twenty-two years. Then the first nun, recognizing the risks of operation, wished to be operated upon. I removed the right lateral and the middle lobe, under local anaesthesia, without difficulty, and the patient was never once in danger to life as the result of the operation. Before operation she was completely invalided, but since she has taken long walks and has made a trip to Tasmania, visiting several convents there. The pain in the ears and upper neck region has disappeared, and all throbbing has gone. Her pulse, which was 120 to 130, is now between 80 and 90; it is still irregular, but quiet. There is oedema now only after long walks, and only in the feet. With a little care, she lives a happy life.

In a number of cases there is slight degree of oedema of the feet, but the heart beats regularly though fast—cases in which there is some acute dilatation, but apparently no gross organic change in the myocardium. These patients recover practically completely, but the period of convalescence is more prolonged than in cases in which there is no cardiac dilatation.

A good instance of this type is a lady who saw me in May of last year, and who arranged to be operated on. She was quite a typical case. On her way to Melbourne for the operation she heard of a case that had died after operation under general anaesthesia, and she at once went back to her home in the country and stayed there for three months. She then came to Melbourne again because she was rapidly becoming worse. She could not then get up the steps to my room. Her feet were oedematous; she had delirium cordis, and she was very ill. I removed the right lobe, the isthmus, and the lower pole of the left lobe at one operation. Her pulse slowed down, and all the objective signs improved, but she remained very weak and sweated profusely for six weeks before she felt much improvement. Then in the sixth week she gained 4 lb. in weight, all the sweating stopped, and from that time improvement was continuous and rapid.

The third class of case, with small thyroid gland, no exophthalmos, marked tremor, intense tachycardia, and constant smothering sensations, I regard as being the worst type to handle. The symptoms, which are out of all proportion to the enlargement of the gland, may indicate that thyrotoxicosis is a dysthyroidea and not a hyperthyroidea, an altered secretion and not simply an excessive secretion. In this class removal of half the gland does not give the certain relief of symptoms that it affords in typical cases. It seems as though even a small remaining portion of gland tissue pours out a secretion of such virulence that it is still able to poison the nervous system. The number of cases of this class is really very small.

With regard to cases without apparent enlargement of the thyroid gland, it must be remembered that not infrequently there is a very large lobe, the greater part of which is behind the upper end of the sternum and the inner end of the clavicle and first rib. In two patients, one male and one female, it was practically impossible to detect enlargement of the gland, yet at the operation the enucleating finger was in contact with the second rib posteriorly, and in each case a large retrosternal goître was removed.

The fourth class, described by some as secondary exophthalmic goître, consists of cases in which the nervous symptoms are secondary, not primary, as the goître precedes the heart irritability.

As a typical example of this class I would instance a nun in whom the goître had been present twenty-two years. She had received constant medical attention. During the latter years she was practically invalided through palpitation, tremors, and sleeplessness. She was afraid of operation, as its severity had been frequently pointed out to her. A large central retrosternal goître was removed. She was out of bed on the sixth day; within three months she was managing, and is still managing, a large orphan asylum.

When to Operate.

Every case should be treated medically for, say, three months, and if there is continuous improvement which shows definite signs of going on to complete cure, medical treatment should be persevered with. I have had three such cases, and I did not operate, although the patients placed themselves unreservedly in my hands.

A practitioner who advises against operation in any case which is not gaining ground, or which is losing ground, is undertaking a large responsibility. Nor is the operation to be regarded as a last resort. If a patient is kept under medical treatment until it is obvious that she is going to die unless some miracle be performed, her chances of ultimate complete recovery have been taken from her. Operation should be performed as soon as it is recognized that the patient is not improving, and before she has lost so much ground that she will require much nursing back to health after the cause of the disease has been removed. At the same time, it should be clearly recognized that it is practically never too late to operate, and that the operation in itself need never prove fatal if performed under local anaesthesia.

Local Anaesthesia.

In my opinion local anaesthesia governs the whole question as to the safety or otherwise of the operation for exophthalmic goître.[1] The underlying causes of death at or after operation are too ill-defined for us to be able to tell which cases will and which will not stand general anaesthesia. Under general anaesthesia the operation cannot be recommended as safe. Under local anaesthesia it may be recommended as perfectly safe unless the patient be moribund. In 88 operations for exophthalmic goître I have had only one death, due to causes which will be explained later, and which need not occur again. I know of 54 deaths which have taken place during the last year in cases operated on under general anaesthesia.

There are many other reasons why local anaesthesia should be employed. Careful as I have been to avoid the vicinity of the recurrent laryngeal nerve, on one occasion the patient suddenly lost her voice and could only whisper. I at once removed all the artery clamps I had applied, and in a few moments she spoke naturally. I believe that if the patient had been under general anaesthesia a silk ligature would have been tied tightly around the nerve. In this instance the forceps had been applied to stop some deep venous oozing, but the nerve had evidently not been badly crushed. I never speak to the patient during the earlier part of the operation, but while the lower pole is being freed from its connexions and the inferior vessels divided, my practice is first to apply forceps, then to ask some question, and on the first sound of *voice* to cut above the forceps with scissors. While there is phonation I know that the nerve is not grasped in the forceps.

Another reason against general anaesthesia is that it is usually followed by some vomiting or retching, which is not only extremely painful with a deep and extensive wound in the neck, but also not free from danger, through the possibility of secondary haemorrhage from the large and brittle vessels which have been ligated. With local anaesthesia there is no vomiting.

Should there be any tendency to acute thyroidism, the treatment is to saturate the patient with fluid, preferably by copious ingestion of water. This is impossible immediately after general anaesthesia. Although the cases now never suffer from acute thyroidism, I always insist on their drinking three pints of water within the first two or three hours after operation as a prophylactic. The large size of a goître is no bar to its removal under local anaesthesia. From one patient I removed a goître (not exophthalmic) which weighed 1¼ lb., and that only represented one lobe and the isthmus. It spread widely under the sterno-mastoid muscles, displaced the carotid arteries and jugular veins, distorted the trachea, and extended apparently to the base of the skull. I have injected three cases, one after the other, before beginning to operate, and then operated on the three in succession without trouble.

The total number of partial thyroidectomy operations I have performed under local anaesthesia is 113. It was necessary to give a general anaesthetic only to one of them, a girl of 17 years, who was so frightened that the operation could not be commenced until general anaesthesia was used. The anaesthesia is usually exceedingly good, though a little dragging sensation is felt while the deep connexions of the gland are being divided. This part of the operation takes very few minutes.

Even should it be admitted that general anaesthesia might be used in selected cases, the majority are too far advanced for a general anaesthetic when they are sent, or come themselves, to a surgeon, and there are many—all of those constituting the second class mentioned above—to whom it would be courting disaster to administer a general anaesthetic.

How much Gland should be Removed?

The next question is, "How much gland substance should be removed?" The answer is, "Enough to cure the patient." Heineck writes:

> The surgeons that have, for the cure of this disease, removed the largest quantity of thyroid tissue short of its entirety, are those that obtained the very best results, both from the standpoint of the number of recoveries as well as from the standpoint of the completeness of recoveries.

Yet for several reasons too much should not be removed at one operation. First, it is bad surgery to remove more than is necessary to effect a cure. More can always be removed, but if too much be removed it cannot be replaced. Moreover, the second operation is safer even than the first, and the patients are so much improved as a result of the first that they face a second with equanimity.

There are differences of opinion as to whether it is necessary to remove more than one lobe. Kocher says that removal of one lobe and ligature of one artery of the other side is sufficient; C. H. Mayo does not advise removal of more than one lobe and the isthmus; Hartley removes considerably more. It is possible, however, that I have not seen their latest publications. In most cases the lobes are so large that if one lobe and the isthmus be removed the remaining lobe is still very much larger than the whole of a normal gland; and it is, moreover, excessively vascular and active. In a case like this the removal of one lobe improves the condition much, but the gland tissue remaining is still sufficient to poison the individual, causing some tremors and palpitation on exertion, and the pulse-rate may still be high.

If the patient is to be completely cured part of the second lobe must be removed. There is no danger of myxoedema if the upper and posterior portion of one lobe be left with its blood supply intact. The removal of portion of the second lobe has cured the condition in every typical case. Some months should be allowed to elapse between the first and second operations, because in many cases palpitation after the operation is simply the result of weakness, and disappears with the returning strength of the patient.

Crushing Gland Substance.

Next to the question as to whether these cases should be treated surgically, the chief interest centres around several points in the technique, chief of which is the method of division of gland substance. Almost all authorities state that the gland should be crushed before division, and that the crushed portion should be ligated or sutured. This is recommended presumably for two reasons, first, to prevent haemorrhage, and secondly to prevent the exit of thyrotoxic secretion. I regard any crushing as quite unnecessary and exceedingly dangerous.

If the operation is for the removal of one lobe alone, it does not matter much whether the isthmus be crushed or not, though even in this case it is unnecessary. There is nearly always a division more or less fibrous somewhere through the isthmus. This is easily found, and if the isthmus is divided along it there is very little bleeding. Crushing across the isthmus causes an increase in the pulse-rate for some days after operation. Stitching up or tying up the crushed isthmus appears to me to be wrong, because it shuts up the crushed and bruised gland in a closed bag, the only exit from which is through the lymphatics and venules of the gland. It should be treated as an abscess or as an accumulation of any toxic material would be treated—that is, by allowing means of free exit for a day or two by means of a tube. This is shown much more definitely in the removal of half the second lobe. In my earlier operations on the second lobe I used to crush across and attempt to ligate, because the literature had taught me to fear haemorrhage when cutting across the middle of a gland in exophthalmic goître. If a lobe is crushed across I have always found the patients exceedingly ill and in the gravest danger for some days subsequent to operation from acute thyroidism. I know now that this is due to so much gland tissue being bruised and crushed and enclosed until it is licked up by the veins and lymphatics of the gland and capsule during the succeeding days.

In the whole series of 88 operations for the thyrotoxic variety of goître I have had only one death following operation, and it was, I believe, due to this cause. The case was my thirteenth. I had just begun to recognize that in a large bilateral vascular goître the removal of one lobe was not enough to cure the case. The disease being a thyrotoxicosis, the larger vascular lobe which remains is still larger than a normal thyroid, and pours out thyrotoxic material sufficient to cause all the symptoms of exophthalmic goître. I therefore did two things which I have since seen to be quite wrong. I removed the right lobe, the isthmus, and half the remaining lobe at the one operation; this was the first error. I crushed the second lobe across before dividing it; this was the second and chief error. This extensive removal of gland tissue at one operation is certainly a mistake if the surgeon is at all slow in completing the operation. With the practice that a great number of cases has given I can now remove one lobe, the isthmus, and half the second lobe in much less time than I took to remove one lobe in my earlier cases, and the handling of the gland is much less.

Many cases since the thirteenth have been incomparably worse before operation, but not one of them has caused me any anxiety. I remove one lobe at a time, and the patient stands it well. Later, if necessary, I remove half the second lobe, and again the patient stands it well, but I never crush. Books speak of bleeding as the great danger of cutting across a lobe, and they speak of crushing as the safeguard against bleeding. If a lobe be crushed across, a large quantity of bruised and pulped thyroid tissue must be left, which is taken up by the blood and lymph streams of the gland itself, and causes the gravest condition by acute thyroidism.

My opinion is not formed from that single case but from the facts that all cases in which I crushed were very ill, and conversely that in a larger number of subsequent cases I have sliced a lateral lobe from upper to lower pole without crushing, and there has never been the slightest danger from acute thyroidism. A tube is inserted for two days down to the raw surface of the gland through a separate incision. The collar incision is accurately sutured. The amount of colourless or slightly blood-stained secretion discharged on to the dressings is sometimes amazing; it continues for four or five days, and is, I think, from the cut surface of the gland and not from the surrounding tissues, because it is not present when a single lobe has been removed, the only cut surface there being through a fibrous division in the isthmus. This discharge is not accompanied by symptoms, a fact that seems to me further evidence that acute thyroidism is not due to absorption of thyrotoxin by surrounding tissues, but that, when present, it is due to absorption from crushed gland by the veins and lymphatics of the gland and capsule

itself. One case is interesting in this respect. A second lobe had been partially excised by clean cutting and without crushing, a large raw surface being left. Gauze drainage had been used. Instead of draining, the gauze had blocked the exit. When I next dressed the case I found the neck distended with secretion. I moved the gauze and the retained secretion poured out. It had been under pressure, but the patient had not been distressed. I believe that avoidance of crushing and free drainage are of the greatest importance.

Crushing is not necessary to stop haemorrhage. A lobe may be cut across with impunity. I do it constantly. When operating on a second lobe I cut from the front of the upper pole downwards and backwards to the back of the lower pole. That removes from half to two-thirds of the lobe, while it leaves the blood supply from the superior thyroid artery intact. Also it preserves the parathyroid glandules of that side from injury, though I cannot believe they possess the importance assigned to them by American surgeons.

The haemorrhage looks alarming at first, but the larger vessels are in the capsule, and are easily picked up. Any big point on the gland surface is underrun with catgut, and sponge pressure soon stops the oozing. Twice in the series I have, when removing a gauze drain on the second day after operation, separated a ligature from a vessel. The haemorrhage was sudden and great; the wound had to be opened at once to secure the vessel. Since then I have always used a tube, never gauze. Latterly, with increased rapidity in operating, I have been removing one lobe, the isthmus, and half the second lobe at one operation, when I have judged that wise. The time taken, and the amount of handling necessary for this, are less than was required for the removal of one lobe in my earlier operations.

What I have written may appear to imply that the operation is easy and safe, but its severity should not be minimized. All handling must be of the gentlest nature, and must be rapid. The vessels are increased in number and size, and they are very brittle. If one gets off the track, the haemorrhage may be appalling and uncontrollable. If the operation is prolonged, the bleeding is bound to be excessive. It is not necessary, however, for any of these accidents to occur.

Finally, I would plead for early operation, as soon as it is seen that medical treatment is not effecting a cure, for with local anaesthesia, rapid operating, no crushing, and free drainage, the operation may be regarded as absolutely safe.

Analysis of Cases.

The following is a short analysis of my cases:

Total number of partial thyroidectomy operations under local anaesthesia, 113. Of these:

Malignant goitre	2 cases.
Exophthalmic goitre	88 cases, 1 death.
Parenchymatous or adenomatous ...	23 cases, no death.

The parenchymatous cases may be dismissed without comment. Of the exophthalmic cases, 52 were typical cases with classical symptoms; 15 of these 52 had part of the second lobe subsequently removed. Of this class I can say that in every case where the removal of the larger lobe has not effected a cure, the removal of part of the second lobe has done so (always excepting the one case which died). In many of the latter cases one and a half lobes were removed at one operation.

Eight cases with irregular heart beats and pronounced oedema. Of these, 4 had part of the second lobe subsequently removed; 1 had a third operation because the upper pole left after the second operation was unsightly. The original goitre had been of immense size. Every one of these stood the operation well. All are still alive but one. She had made a splendid recovery, and three months later went to her country home, engaged in a round of festivities for a week in a climate with the temperature of over 100° in the shade most of the time, and died very suddenly at the end of it. This case, before operation, had oedema of the legs, body, and arms. There were striae around the elbows like those on the abdomen of a multiparous woman, and the evening before operation fluid was drawn off from both pleural cavities. After the operation she passed immense quantities of urine each day. Every trace of oedema disappeared until the week in which she died. All the others are very much improved.

Two cases, irregular, had intense tachycardia, but no glands enlarged and no exophthalmos. Of these, in 1 case I subsequently removed a small piece of the lower pole of the left lobe. She represents the only failure of the series.

Five cases of secondary exophthalmic goitre. In this class cure is rapid and complete.

Seven of the exophthalmic cases have been in males.

REFERENCE.

Dunhill, *Intercolonial Medical Journal*, June 20th 1908.

A CONTRIBUTION TO THE SURGERY OF LINGUAL THYROIDS.

BY WILLIAM STUART-LOW, F.R.C.S.,

SURGEON TO THE CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL; LECTURER ON PRACTICAL OTOLOGY AT THE MEDICAL GRADUATES' COLLEGE.

THE persistence and development of thyroid remains in the posterior third of the tongue are the least usual of the aberrations to which the thyroid gland is liable, but its occurrence is sufficiently common, and these remains are sufficiently difficult to eradicate successfully and completely to warrant close attention to any improvement in the accepted methods of treatment.

The development of the thyroid gland explains their occurrence. As early as the fourth week, during the appearance of the buccal and pharyngeal portions of the tongue on the floor of the primitive pharynx, the hypoblast between these two parts proliferates and gives rise to a solid protrusion, and the part thus formed pushes downwards and backwards to the hyoid bone, and becomes the isthmus and part of the lateral lobes of the thyroid. The stem of this bud represents the thyro-glossal duct, and the buccal opening of the duct the foramen caecum. It is in the track of this duct that the remnants of thyroid tissue lie. These developmental remains may occur in any part of this canal, and constitute, when arising in the portion of it extending from the foramen caecum to the hyoid bone, lingual thyroids.

There may be one or a number of detached thyroid masses; and when one such mass is removed the others may take on compensatory action and grow, giving rise to a recrudescence of the tumour after operation. This is the reason for the imperativeness of radical measures in operating on these structures in the tongue.

The case narrated in this paper well illustrates the obstacles encountered in the removal of this fetal manifestation, and proves that the procedure most usually adopted may be futile, and therefore not always the best to employ.

A question that must ever be before the mind of the operator and carefully taken into account before deciding upon operation on the lingual thyroid is whether the thyroid gland in the neck is sufficiently developed to carry on the thyroid function in the bodily economy, or is the lingual tumour the only thyroid representative present? It is on record that excision of the lingual thyroid has been followed by myxoedema. The neck should, therefore, always be carefully palpated, and the outline, size, and development of the thyroid estimated. Should the gland be apparently absent, or be but small, one should certainly hesitate before deciding to operate. It would only be when the lingual tumour was of considerable size, and causing such marked disturbance as to impair the health, or jeopardize life, that a radical operation should be entertained.

In such circumstances it would be preferable to resect the thyroid tumour in the tongue, thus reducing its bulk, and so, in all probability, the distressing symptoms, and at the same time leaving sufficient gland to carry on the indispensable thyroid functions. This course should be chosen even at the risk of a recurrence of the lingual enlargement.

In searching the literature of this subject I have been unable to find any record of the method here adopted having been used for the eradication of these tumours—namely, by splitting the tongue from tip to base. The methods usually chosen have been either that of the galvano-cautery, or subhyoid pharyngotomy, or a combination of partial excision and the galvano-cautery.

The particular procedure selected is dependent upon the size of the growth. If the tumour be large, operation through the mouth is not likely to be successful, as access would be insufficient, unless the method here advocated were adopted. In these circumstances the operation of subhyoid pharyngotomy is that most favoured by surgeons, but this is by no means an ideal procedure.

It is excellently suited for the removal of growths at the entrance to the larynx, that is, involving the epiglottis, aryepiglottic folds, arytenoid cartilages, and in the region of the sinus pyriformis. But for tumours in the locality of the base of the tongue it has the great disadvantage of

opening a communication between the septic cavity of the mouth and the large neck wound. There is much risk of the wound failing to unite by first intention, and of a fistula resulting, or a disfiguring puckered cicatrix occurring, and in the case of a female patient this would be a serious consideration. The patient has to be most careful to maintain a fixed position of the head for some days, and the recovery is therefore slower and more hazardous, necessitating studious nursing and a longer stay in hospital.

Another disadvantage in subhyoid pharyngotomy that must not be lost sight of is that the extent of the opening is restricted by the imminent risk of dividing the superior laryngeal nerve if the transverse incision be carried any distance beyond the hyoid bone, as this nerve enters the larynx by piercing the lateral part of the thyro-hyoid membrane. Should the nerve be cut, the larynx is rendered insensitive, allowing of the entrance of food and mucus, and the wound discharges into the larynx. There is great likehood of aspiration pneumonia, as these foreign substances cannot be reflexly coughed up, since the sensitiveness of the larynx to their presence has been destroyed, and one cannot trust, therefore, to the cough reflex to prevent secretions from flowing further down.

The tumours formed by lingual thyroids vary in size from that of a cherry to that of a hen's egg or small Tangerine orange. If the growth is small, incision of the covering mucous membrane and curetting, with the subsequent application of the galvano or thermocautery, will sometimes suffice to get rid of it and prevent recurrence, but this treatment is less likely to be efficient than excision of the capsule, which consists of the dilated remains of the thyro-lingual duct.

Should the tumour be large, then excision becomes necessary, and the chief difficulty is to gain sufficient access so as to leave none of the gland substance behind. This obstacle is most readily overcome by the method of section of the tongue in the middle line.

The case in which this operation was carried out was that of a female, aged 32 years, a teacher by profession, who came to the clinic at the Central London Throat, Nose, and Ear Hospital complaining of something growing at the base of the tongue, of thickness of the voice, and of constant and uncontrollable desire to swallow. On looking into the mouth a large firm swelling was found occupying the region of the lingual tonsil and projecting above the surface quite visibly. She gave a history of a similar condition having existed eleven years before, when an operation was performed at St. Bartholomew's Hospital, and stated that she was again operated upon at the same hospital nine months ago owing to a recurrence. Both of these attempts at excision had taken place through the mouth, but laryngotomy had not been done on either occasion.

The operation here advocated was performed as follows: Under chloroform anaesthesia laryngotomy was performed, and the pharynx being firmly plugged with a captive sponge, the anaesthetic was administered through the tube.

The tongue, being well protruded from the mouth by means of two deeply-inserted stout silk cords, was split from tip to base, and in this way the tumour, which was the size of a small Tangerine orange, was effectively exposed. The growth proved to be solid, and was enveloped in a firm, thick capsule; it occupied nearly all the region of the base of the tongue, the structures being so stretched and attenuated over it that there was considerable danger of the whole tongue coming away during the extrusion of the mass. Part of the capsule, very deeply situated near the hyoid bone in the vicinity of the thyro-lingual duct, had to be resected, but this was first thoroughly curetted and the surface well rubbed with a solution of chloride of zinc, gr. 60 to ʒj. The tongue was then stitched up from tip to base with interrupted sutures of chromicized catgut, except the last half-inch above and below which were left open for drainage.

Rectal feeding was employed for two days, and a spray of peroxide of hydrogen used for the mouth. She made an uninterrupted recovery, and left the hospital on the sixth day.

The tumour proved to be of thyroid-adenomatous nature.

THE annual meeting of the Medical Defence Union will be held at University College, Bristol, on Thursday next, at 4.30 p.m., when the annual report of the Council and statement of accounts will be presented.

PREPARATIONS are being made for a Health Congress in Leeds from July 17th to 24th, under the joint auspices of the Corporation and University of Leeds, the Royal Sanitary Institute, and the Royal Institute of Public Health. A meeting was held in the Town Hall on May 18th, presided over by the Lord Mayor (Alderman F. J. Kitson), at which committees were appointed to arrange for the reception, entertainment, and general comfort of those who will be attending the congress.

NOTE ON THE REMOVAL OF PORTIONS OF DOUBTFUL TUMOURS FOR DIAGNOSTIC PURPOSES.

By ARCHIBALD LEITCH, M.B.,

PATHOLOGIST TO THE CAIRD CANCER RESEARCH LABORATORY, DUNDEE.

DURING a discussion on mammary carcinoma at the annual meeting of the British Medical Association in 1908, Sir W. Watson Cheyne and other surgeons condemned the practice of removing portions of suspicious tumours of the breast for diagnostic purposes. It was contended that by cutting into cancerous tissue the tumour cells were carried into healthy surroundings and that there was grave risk of transferring them into opened lymphatic vessels from which, apparently by a process of embolism, they might be disseminated; and, at any rate, the condition was considerably aggravated by such a proceeding.

Two assumptions are the basis of this contention, first that the artificial transference of the cells from the malignant tissue to hitherto normal tissue increases their malignancy, and, second, that the deposition of these cells at the open mouths of severed lymphatics places them in a position for more rapid dissemination. There is no experimental evidence in favour of the former, and with regard to the latter there is no *a priori* reason why dissemination along opened lymphatic channels should differ from the same process occurring naturally along closed channels. It may, however, be said that by the procedure under discussion a wider area of lymphatic paths is presented to the growing cancer; and if sufficient time is allowed to elapse between the exploratory operation and the extended operation in the case of the tumour proving malignant, this would constitute a danger. Section of a doubtful tumour *in situ* can often determine the diagnosis, and in the case of cancer the immediate and extensive removal that would be practised would eliminate any such danger. Where such section does not render the condition certain, recourse should be had to laboratory methods that allow of rapid diagnosis, the examination of frozen sections, a proceeding which need not delay the operation for more than a few minutes, and which would not increase the supposed danger. To obviate the risks consequent on removal of a portion of a doubtful tumour it was proposed to remove the whole tumour presumably as if it were a simple tumour. Any wider removal than this, supposing no malignancy was present, would not be good surgery; and in the event of the tumour proving malignant, in which case the removal would be admittedly incomplete, would these risks be eliminated or even decreased? The proposition is very questionable, for in circumsectioning a malignant tumour the surgeon would be cutting across lymphatic channels on all sides, some of which might be certain to contain cancer cells; the lymphatic and the implantation areas would be enormously increased. Whatever way be adopted, rapid histological methods of diagnosis are essential.

The method which I have found to give the best results is as follows:

Thin slices of the doubtful tissue, about 1 mm. in thickness, are removed, and placed immediately in acetone and taken to the laboratory.

The slices are transferred to hot water for a few seconds, dipped in gum solution, and placed on the stage of a freezing microtome. The current of carbon dioxide is turned on, and the whole tissue is well frozen in less than one minute. The microtome used is a very handy little apparatus made by Leitz, the knife carrier of which is sufficiently heavy to give a good momentum to the razor.

The sections, as they fly off tangentially, are caught in a basin of water held by an assistant. They are floated on to a glass slide, the excess of water is dried off, and a drop of acetone solution of "krystallviolet" is placed on the section. This fixes it to the slide and stains it rapidly. The excess stain is removed with water and acetone and the section is cleared with xylol and is then in a condition to be examined under the microscope.

Good histological preparations can thus be obtained and may be kept permanently. Allowing two minutes for conveyance of the tissue from the operating theatre to the laboratory, during which time the specimen lies in acetone, I have found that on an average the whole time occupied, from the removal of the tissue till the diagnosis is given to the surgeon, is seven minutes. I have also tried to freeze the tissue as it was obtained and to cut sections without

any sort of fixation or embedding, but it is rather hard on the razor, and staining is interfered with. It occupies less time, and is fairly trustworthy. The method given is, however, much superior.

As has been pointed out, doubtful tissue removed for diagnosis should always, if possible, be examined rapidly. Examples of what seem to me dangerous uses of diagnostic removal of doubtful tissues are found in the gynaecologist's curettings. By the curette, in the case of malignant disease of the uterus, all the favourable conditions for wide implantation of cells are supplied. Malignant cells are embedded in perhaps normal tissue, a large lymphatic area is trenched upon, and, if embolic dissemination by lymphatics or blood vessels be accepted as a possibility, the risks are much increased. But the greater danger of continuous permeation of lymphatics over an increased area is courted when a few days are allowed to elapse between the curetting and the major operation.

From the pathologist's point of view, diagnosis from uterine scrapings is always difficult and liable to frequent errors. The tissue removed is divorced from its surroundings; its proper relationship is often indeterminable. A negative diagnosis is generally worthless, and in practice is not relied upon; a positive diagnosis is frequently untrustworthy. In the absence of the surroundings several conditions are liable to be mistaken for carcinoma or sarcoma even by the most competent pathologists: inflammatory conditions, sloughing fibroids, hypertrophic and hyperplastic endometritis, adenomyoma, decidua, and conception products. Short of hysterectomy in doubtful conditions, there are no present methods of procuring portions of the suspected tissue otherwise than by the curette, for the reason that it is impossible, without actually seeing the interior of the uterus, to determine the position of the lesion. This, of course, does not apply to the cervix or endocervix. When scraping is resorted to the methods of diagnosis should be rapid, and as trustworthy results can be obtained by the freezing method above indicated as by any other.

But though the problem is different in many respects, it should not be impossible to apply indirect methods of inspection comparable to those adopted in the examination of hollow viscera such as the bladder, or more or less direct methods, as in the case of the oesophagus or rectum. By these means the disease could be located and a portion removed in the condition most suitable for pathological investigation.

THE INCIDENCE OF MORGAN'S BACILLUS NO. 1 IN THE NORMAL FAECES OF YOUNG CHILDREN.*

BY

J. W. H. EYRE, M.D., D.P.H., BACTERIOLOGIST, GUY'S HOSPITAL. and E. P. MINETT, M.D., D.P.H., ASSISTANT BACTERIOLOGIST.

[From the Bacteriological Laboratories, Guy's Hospital.]

IN this JOURNAL (April 21st, 1906, and July 6th, 1907), Morgan (who was at that time Ernest Hart Memorial Scholar) published the results of a bacteriological examination of the stools of children suffering from epidemic infantile diarrhoea. The examination was confined to the group of non-lactose fermenting bacilli, which includes several well-known pathogenic organisms, such as typhoid and the various forms of dysentery bacilli. As a result of his work, Morgan concluded that in this country epidemic diarrhoea is not occasioned by one of the forms of dysentery bacilli, as was the case in some outbreaks investigated in America; but a particular organism, hitherto undescribed, called by him No. 1, was discovered in the stools of 50 per cent. of the cases. The biological characters, the pathogenicity, and reasons for regarding this organism as a factor in the causation of infantile diarrhoea were detailed by Morgan in the papers referred to.

The etiological importance of Morgan's organism in epidemic diarrhoea has been further investigated during the last two summers by Morgan and several members of the staff of the Lister Institute, and during the summer of 1908 a small share of the collective investigation was assigned to the Bacteriological Department of Guy's Hospital—namely, to control the investigation of diarrhoea cases by examining faeces from practically normal children (or children suffering from diseases other than those of the alimentary system), in order to determine whether Morgan's bacillus No. 1 was present, and, if so, in what percentage of the cases. These control cases were examined during the epidemic period of the year.

Material was obtained either from cases attending the out-patient department of the Surrey Dispensary, from healthy children accompanying mothers under treatment, or from healthy children belonging to families in which some other member was being attended by the district nurses instructed by that dispensary. No attempt was made to select children of any particular age period other than the broad one comprised between birth and 13 years, but the cases investigated are comprised in the following classification:

TABLE I.

Cases Investigated from July 24th to September 9th, 1908.

Age Period.	Male.	Female.	Total.
0-1	5	6	11 (1)
1-2	5	4	9 (1)
2-3	1	2	3
3-4	5	9	14 (1)
4-5	1	4	5 (1)
5-6	2	2	4
6-7	0	1	1
7-8	0	1	1
8-9	0	1	1
9-10	0	0	0
10-11	0	1	1
11-12	0	1	1
12-13	1	1	2
Not specified	3	4	7
	23	37	60 (4)

In all 60 cases were examined, 23 males and 37 females. These were scattered, so far as their homes were concerned, over the district bounded by the River Thames, Blackfriars Bridge Road, New Kent Road, Old Kent Road, and Bermondsey New Road, a poor and densely-congested area. The general condition of health in the selected cases was not, as a rule, first-class; but care was taken to avoid actual cases of intestinal disease, as well as children belonging to households in which sporadic or epidemic cases of diarrhoea had occurred. Such children as were themselves patients at the Surrey Dispensary suffered usually from some sequel to an infective fever, as will be seen from the following list, which accounts for 41 of the 60 cases:

Sequelae of Infective Fevers.

After scarlet fever (nephritis)	1
After measles	7
After varicella	1
After pertussis	9
Malnutrition	8
Bronchitis	7
Chorea	2
Convulsions	1
Rickets	1
Congenital syphilis	1
Tuberculous joint	1
Chlorosis	2
	41

The remaining 19 children were, so far as can be ascertained, perfectly normal. The period of time over which the investigations extended was nearly two months, from the fourth week in July, 1908, to the second week in September.

Collection of Faeces.

The apparatus employed for the collection of each sample of faeces consisted o a large-sized specimen vial

* The expenses of this investigation were defrayed by a grant from the Scientific Grants Committee of the Royal Society.

containing a small metal spoon fixed to the cork which closed the mouth of the vial. The apparatus was sterilized in the hot air oven at 180°C. In taking the specimen the spoon was filled with a portion of the freshly-voided material, and replaced in its vial, which was then marked with the serial number.

After consultation with Dr. C. J. Martin and Dr. H. de R. Morgan, the following procedure for the detection of Morgan's bacillus No. 1 was agreed upon:

1. Bile-salt agar containing 1 per cent. mannite, and coloured with neutral red was chosen as the *selective* medium. It was used for the purpose of surface plate cultures—the medium being poured in Petri dishes, allowed to set, and dried for an hour at 43° C. before planting.

2. As soon as possible after collection, usually within an hour, a loopful of the faeces was transferred to the surface of the selective medium by means of a sterile platinum loop. An ordinary L-shaped glass or aluminium spreader was then used to distribute the material uniformly, and two or more further plates of the same medium were inseminated "in series," in order to ensure adequate dilution. This first stage yielded nearly one hundred (?) non-fermenters.

3. After forty-eight hours' incubation at 37° C. such colonies, if any were present, as had failed to ferment the mannite were picked from the plates and planted upon sloped tubes of ordinary nutrient agar; after incubation at 37° C. for twenty-four hours these agar cultures were stored in an incubator at 20° C. until the entire series of cases had been examined.

4. Next these agar cultures containing the presumably "non-fermenters" of mannite were replanted on the selective agar, in order to determine the purity of the cultivations thus obtained. [This step is essential, for, as all who have worked at the bacteriology of faeces are aware, it is quite a usual thing, on plating out the growth from what appears to be one single colony on a plate, to find two or three or sometimes more organisms present. This is probably due to the faecal mucus holding several organisms in close contact, and at the same time so firmly that the ordinary method of spreading the faecal material over the plate fails to separate them.]

5. After incubation for forty-eight hours at 37° C., individual non-fermenting colonies were picked from each set of plates and subcultivated once more on to nutrient agar for twenty-four hours at 37° C. At this stage the (?) non-fermenters were reduced to about 60.

6. Each organism was transplanted from the agar into mannite broth tinted with litmus and incubated for forty-eight hours.

7. Such strains as failed to ferment mannite in the fluid menstruum were again plated, this time on Eyre's nutrose agar (prepared with ox serum) containing lactose, as well as on the selective medium, neutral red-mannite-peptone-salt-meat-agar, and the plates incubated for forty-eight hours. At this stage the (?) non-fermenters were reduced to six.

8. From each set of plates several colonies representing each strain of non-fermenters were isolated and planted upon gelatine, the reactions upon the various carbohydrate media carefully studied, also the indol-producing capacity of each strain investigated, together with the action of each upon litmus milk. In this final study strains were run in parallel series with a cultivation of Morgan's Bacillus No. 1, obtained for the purpose from the Lister Institute from Dr. Morgan himself. This final stage resulted in the isolation of four strains of Morgan's Bacillus No. 1, a percentage of 6.3. The identity of these with Morgan's bacillus are best shown in tabular form (see Table II).

On referring to the original notes relating to the source of origin these four strains were found to have been derived respectively from the four following cases:

Serial number ...	13	22	24	32
Date of examination of faeces	July 24th	July 31st	Aug. 5th	Aug. 12th
Sex of child... ...	Male	Female	Male	Female
Age of child	4 years	1 year 2 months	5 years	3 months
Clinical condition...	Malnutrition	Normal	Rickets	Whooping-cough
Place of residence...	Sumner's Buildings	Southwark Bridge Road	Barnham Street	Douglas Buildings

Beyond the fact that six other children from Sumner's Buildings were examined, with negative results, the above details call for no comment.

TABLE II.

	Morgan No. 1.		Serial No. 13.		Serial No. 22.		Serial No. 24.		Serial No. 32.	
	Acid	Gas	Acid	Gas	Acid	Gas	Acid	Gas	Acid	Gas
Dextrose	+	+	+	+	+	+	+	+	+	+
Laevulose	+	+	+	+	+	+	+	+	+	+
Galactose	+	+	+	+	+	+	+	+	+	+
Maltose	−	−	−	−	−	−	−	−	−	−
Lactose	−	−	−	−	−	−	−	−	−	−
Saccharose	−	−	−	−	−	−	−	−	−	−
Raffinose	−	−	−	−	−	−	−	−	−	−
Dulcite	−	−	−	−	−	−	−	−	−	−
Mannite	−	−	−	−	−	−	−	−	−	−
Glycerine	−	−	−	−	−	−	−	−	−	−
Inulin	±	−	−	−	−	−	−	−	−	−
Dextrin	−	−	−	−	−	−	−	−	−	−
Indole	+		+		+		+		+	
Litmus milk* ...	± to 0		± to 0		± to 0		± to 0		0	

* ± = faintly acid; 0 = no change.

THE EMPLOYMENT OF IODIPIN IN SYPHILIS.

BY DOUGLAS FRESHWATER, M.A., M.B.,
B.C.CANTAB., M.R.C.S., L.R.C.P.,
ASSISTANT IN THE SKIN DEPARTMENT, ST. GEORGE'S HOSPITAL.

IODIPIN has proved itself of such pronounced value in the treatment of certain syphilitic affections, that I do not think it would be out of place to give a short account of the method of its administration, and the special varieties of the diseases in which it is of value.

In 1897 Winternitz[1] made some experiments on animals, by feeding them on iodized fats, and after death he found traces of iodine in nearly all their tissues, especially in the bone marrow, liver, and mesenteric fat. From these results he concluded that, by the administration of an iodized fat, iodine may be supplied directly to any diseased tissue, and so develop its specific action. He also found that the iodine in these iodized fats—that is, mesenteric fat, etc.—through oxidization in the blood, combined to form an alkaline iodide, and from this it would appear that iodine so combined would have the same therapeutic action as potassium iodide.

In 1898 an additive compound of iodine and sesame oil, called iodipin, was introduced by Merck. It is prepared by repeated iodization of sesame oil by means of iodine monochloride in alcholic solution. Iodipin is a light oily liquid, and is prepared in two strengths—10 per cent. and 25 per cent. The specific gravity of the former is 1.025, and of the latter 1.227. Iodipin at low temperatures becomes of a honey-like consistency, but it liquefies and becomes clear again if gently heated on a water bath. If exposed to a bright light it in time becomes brownish-yellow in colour, but this is no bar to its subsequent use, provided it remains clear and transparent; but a blackish tint, as well as flocculence or precipitates, renders it unfit for use. More recently a solid iodipin has been introduced, and is supplied in yellow-coated tablets of 7½ grains each, containing ¾ grain of iodine, corresponding to 1 grain of potassium iodide.

Iodipin may be administered by the mouth, or by subcutaneous or intramuscular injection. The last method is that most commonly employed on the Continent. The 10 per cent. iodipin was introduced for internal administration, and the 25 per cent. for subcutaneous or intramuscular injections. The 25 per cent. is now nearly always used in both these methods. Iodipin taken by the mouth is passed

practically unchanged through the stomach into the duodenum; here it is acted on by the bile and pancreatic secretions, and is emulsified (Pillemont), the iodine remaining bound to the fatty acids. The process of absorption is the same as for all fats. In the blood, iodipin circulates as small globules of iodized fat, and is partly acted on by the alkaline salts to give off free iodine, while the greater part goes to form a store of iodized fat in the tissues—for example, bone marrow, liver, etc.

When iodipin is given by the mouth, the iodine may be detected in the urine within half an hour. It may be given in capsules, or as an emulsion with tragacanth, but most patients will take it readily in milk, or hot coffee. The dose is ʒss. to ʒj of the 25 per cent. solution, but much larger doses may be given, up to ʒiv or even more three times a day (Radestock[2]). I have had no experience with 10 per cent. iodipin, but have given 25 per cent. iodipin in capsules of 2.0 grams (2.0 grams = 9 grains KI) in cases of syphilis, when there was an idiosyncrasy to potassium iodide, with favourable results.

For giving iodipin by intramuscular or subcutaneous injection, a syringe with a capacity of 20 c.cm., and with a large nozzle, is required. The needle must have a large bore and be at least 2½ in. long. A suitable syringe is such a one as has elsewhere been described by me.[3] The piston is actuated by a rack and pinion movement, to get over the great force required to introduce the iodipin. Unfortunately, the "all-glass" syringes are not strong enough to withstand the great strain required to give an injection. The syringe will remain sterile if it is suspended in a glass jar, and if it is not quite emptied after an injection. The needle must, of course, be boiled, preferably in a solution of common soda. The injections are usually given in the buttock, the upper and outer quadrant being usually selected, as there are said to be fewer vessels and nerves at this spot.

The skin should be first cleansed with ether and then rubbed well with a swab moistened with a solution of mercury biniodide. The needle is then introduced with a sharp stab, and the syringe is removed, the needle being left *in situ*. A short space of time is allowed to elapse in order that it may be seen if a blood vessel has been entered, which mishap would at once become apparent by the exudation of a few drops of blood from the needle. Should this occur, the needle must be withdrawn and introduced afresh, and so on, until a spot is reached where no blood passes back through the needle. It is dangerous to give an injection if blood exudes from the needle, as a pulmonary embolism might easily occur. The filled syringe, having been warmed over a spirit flame, is fitted on to the needle and gradually emptied. A large amount of force is required to give an injection, unless a syringe with a mechanical contrivance such as I have mentioned is used. The syringe and needle are then withdrawn, the site of the injection is massaged for a few seconds with the finger-tips, and a dressing of gauze and collodion applied; this is essential, and must be carried out with care, as the iodipin tends to flow back. The injection causes practically no pain, and any discomfort is due to the accidental movement of the needle-point, or the stretching of the tissues round about, due to the introduction of so large a quantity of fluid. Occasionally during the operation pain may be felt along the course of the sciatic nerve, but I have never found it sufficiently severe to necessitate the injection being suspended, nor has any patient been so inconvenienced as to prevent him getting about his business. It is, however, well to let him rest for a few minutes. A course of iodipin injections amounts in the aggregate to the introduction of 200 to 300 grams, according to the severity of the case and according to the length of time between this and the next course. Twenty grams may be injected daily, or every other day, according to the requirements of the case. It is well to begin with 10 grams, increasing to 15 grams, and then to 20 grams, as the patient becomes more accustomed to the injections. Larger doses have been given, up to 30 grams, but these cause discomfort and are painful. The injection should be given on a different side each time, an average course of about 250 grams, expressed in terms of potassium iodide, is equivalent to about 1,250 grains of this salt. The 25 per cent. iodipin is provided in bottles of 100 grams each. I therefore give the best part of three bottles, in fifteen injections, once or twice a year according to the case. I do not think that more than six courses of iodipin should be given to a patient, as there is a good deal of scar formation in the tissues of the buttock, which prevents infiltration through the buttock tissues, and also hinders absorption.

Iodipin is sterile and non-irritating, and unless sepsis be introduced at the time of the injection, through some fault in the technique, abscess formation need not be feared. I have never known an abscess follow an injection, but a hard infiltration is often seen, especially if the needle has not been pushed sufficiently deep into the tissues. There may be some slight discoloration of the skin over the site of the injection, but it passes off in a few days. The buttock, as a whole, may become enlarged, owing probably to the infiltration of the large amounts of iodipin into the subcutaneous tissues. Energetic massage will, however, soon reduce this.

Iodipin, after it has been injected, is very slowly absorbed. Traces may appear in the urine as early as the second day after the injection, but it is not until the sixth to tenth day, usually the latter, that a definite iodine reaction is shown on testing the urine. This reaction is easily obtained by adding an equal quantity of nitric acid to the urine in a test tube, waiting a short time for the two to combine, and then shaking up the contents with a little chloroform. The chloroform takes up the free iodine, as shown by a rose to red colour at the bottom of the tube. After long standing, certain alterations occur in the urine, changing the organic iodine combinations into the inorganic, and consequently the amount of iodine that may be liberated with nitric acid increases the longer the urine stands. From the second to the tenth day the elimination of iodine increases steadily until it reaches a maximum, which, in most cases, is 0.2 gram per litre in the twenty-four hours, and when this is reached it is not exceeded, no matter if twenty-five or fifty injections of 20 grams each are given. This proves that iodipin is deposited as iodine fat (as Winternitz says), wherever fat is present, so forming a sort of iodine reservoir, which is slowly drawn upon, that the iodipin is gradually utilized in the system, and that the quantities injected do not cause sudden changes in the amount excreted. The absorption of iodipin is favoured by bodily exercise, and takes place more readily in muscular and energetic people than in those who are either confined to bed or unable to take any exercise. Gentle massage after giving an injection also favours absorption by displacing the iodipin into the tissues of the buttock.

Iodine is secreted by the urine, saliva, and faeces. The largest absolute quantity is eliminated by the urine, the largest relative quantity by the saliva, and only a very little by the faeces. There is none excreted by the sweat. The period of excretion of iodine depends, to a certain extent, on the amount of the injection. Large doses appear to last longer; but this is, I think, due to the larger amount absorbed, and so giving longer appreciable traces of iodine in the urine. The rate of absorption is, I think, the same for large or small doses. Iodine may be detected in the urine from three to six months after a course. This period is often exceeded, and one observer found traces after 402 days.

The excretion is fairly regular at first, but towards the end there is a rapid falling off. With potassium iodide large amounts are excreted over short periods. This explains the more energetic action of potassium iodide as compared to iodipin, and, when prompt action is desired, potassium iodide should be given.

I have never seen a case of intoxication with iodipin, even in those cases in which there is marked idiosyncrasy to potassium iodide. Occasionally there may be a few acne spots on the forehead, but these do not pustulate; nor have I seen a case with coryza. The patient, while undergoing an iodipin course, feels perfectly well, and has none of the depression which so often accompanies a course of iodide. As in some cases there is an increase in weight, it appears to be indicated in thin and badly-nourished cases; another important factor in these cases is that there is no disturbance of digestion from free iodine being set free in the stomach.

In secondary syphilis, it is advisable for patients to undergo a course of iodipin injections, in the hope of a prophylactic action against tertiary syphilis and para-syphilitic lesions, especially in those cases which show few

secondary symptoms, as it has often been noticed that parasyphilitic lesions have generally followed such cases, and it is rational to assume that in these instances the toxins which later on cause these lesions are produced early in the disease.

Cases which do not take mercury well will be found to stand it much better if it be given in conjunction with iodipin. If the cases are being treated by injections of mercury, it is better to give the iodipin either before or after the course of injections, but both injections may be given during the same period; in these cases, one side of the buttock should be reserved for the mercury salts, and the other for the iodipin.

In syphilis of the nose, iodipin is often preferable to potassium iodide, except in very acute cases, where there is danger of perforation of the septum or hard palate. The putrid greyish masses seen in the nasal cavity, probably remnants of a gumma, are more speedily thrown off under iodipin administration than under a long course of iodide. These patients are, moreover, spared any rhinitis, which is easily produced when giving iodide of potassium.

In syphilis of the central nervous system, where iodine is indicated, and the treatment should extend over a long period, this is obtained by the administration of iodipin.

One of the well-known effects of the poison of syphilis is arterial degeneration, and, both in its prevention and treatment, iodipin has proved to be of value (Kalmus[4]). The continuous circulation of iodine in the blood vessels may be assumed to be a powerful factor in the prevention of such degeneration, or if it has already commenced, in arresting its further progress.

The advantages of iodipin may be summed up as follows:

1. It is often necessary to give a long course of iodine to patients who are unwilling to take iodide either from its lowering effects or that they are the subjects of iodism.
2. All the iodipin injected is used up and must exert its specific action; an exact dosage is therefore possible.
3. Injections are painless, and there is no fear of sepsis if proper precautions have been taken.
4. Iodipin subcutaneously does not produce iodism. Patients who have an idiosyncrasy to potassium iodide can take it quite well.
5. Patients remain much longer under the influence of iodine than when iodine is given in other forms. After a short course of injections the system can be kept for a period of four to six months under the influence of iodine.
6. The body is under a slow, continuous regular action of iodine, which is of prophylactic value.
7. In nearly all cases, after a prolonged course of potassium iodide, there are stomach and bowel troubles. This does not occur with iodipin.
8. It has a specific action in tertiary syphilis and arterial degeneration.

The disadvantages to the use of iodipin may be briefly summarized as follows:

1. In cases of syphilis, when a rapid therapeutic effect of iodine is required, iodipin is of little use, as the absorption of iodipin is extremely slow, two to ten days elapsing before the iodine can be definitely demonstrated in the urine, so that in cases in which there is a threatened perforation of the palate, cerebral gumma, etc., potassium iodide should be given. Iodipin is not a substitute for potassium iodide when active lesions are in progress, but its value in the conditions I have previously mentioned can hardly be disputed.
2. A further disadvantage is that only a small amount of iodipin can be absorbed per diem, about one-third what would be given in the ordinary way by the mouth. This can, however, be turned to account in various ways. For example, in tertiary syphilis, after potassium iodide has been administered somewhat vigorously, a course of iodipin injections may be given, and the patient may then be left without medicine for some months, during which time the physician knows that iodine is daily passing through his tissues.

REFERENCES.
[1] Winternitz, *Deut. med. Woch.*, 1897, No. 23. [2] Radestock, *Therap. Monats.*, October, 1899. [3] *Lancet*, May, 1908. [4] *Fol. Therap.*, July, 1908.

UNDER the will of the late Mrs. Martha Maria Fraser MacEwan, of Cobham, the Royal Hospital for Incurables at Putney and the London Hospital receive bequests of £2,000 and £5,000 respectively.

PROSTATE WEIGHING SEVENTEEN OUNCES REMOVED BY THE SUPRAPUBIC ROUTE.*

BY ANDREW FULLERTON, B.CH., F.R.C.S.IREL.,
HONORARY ASSISTANT SURGEON TO THE ROYAL VICTORIA HOSPITAL AND THE BELFAST HOSPITAL FOR SICK CHILDREN.

ENORMOUS prostates have been removed in recent years by the method of Freyer, but I am not aware that one of the dimensions of that now reported has been so dealt with.

The patient was a gentleman aged 73, and was under the care of Dr. Colville of this city.

History.

He had always enjoyed good health. About a year ago he was successfully operated on for cataract. For the past ten years he has had to get up once or twice at night to pass water, but has never suffered severe pain. Nine months ago he had an attack of haematuria, which came on spontaneously without the passage of any instrument. At this time he passed a good deal of gravel, but no definite calculus. On rectal examination the prostate was felt to be very much enlarged. The haematuria lasted one day, and did not recur till the onset of the present illness. Ten days before I saw him with Dr. Colville he had a somewhat alarming cardiac attack during which his pulse fell from its usual rate of 72 to 40. He became pale and collapsed, and his face assumed a bluish tinge. Both hands were cold and anaemic as far as the wrists, and his feet were similarly affected. The heart sounds, especially the first, were faint and weak. There was no increase in cardiac dullness, and no adventitious sounds could be heard. The pulse, though slow, was of fair tension. Two days before I saw him he had a slight attack of haematuria. The next day he had retention, but a soft rubber catheter drew off about a quart of blood-stained urine, and during the rest of the day he passed water naturally. Next morning he had retention again, and on this occasion catheterization failed owing to the instrument getting blocked with clot. I then saw him with Dr. Colville, but failed to relieve him with catheters, and we resorted to suprapubic puncture. At this period prostatectomy was considered, and the opinion of Sir William Whitla was sought to enable us to decide, if possible, whether his heart was fit for the shock of the operation. With some misgivings, it was decided that the operation should proceed.

Operation.

Accordingly, the same afternoon I removed a huge prostate weighing 17 oz. by the suprapubic route. The operation was attended with the greatest difficulty on account of the finger being unable to reach the deeper portion of the gland. I had to put the greater part of my hand into the bladder, and even then I had the greatest difficulty in reaching the furthest limits of the growth. In order to deliver the prostate I was obliged to split it longitudinally and remove it in halves. The operation, a truly laborious one, was completed in fifteen minutes from the commencement of the incision, and was conducted under ethyl chloride administered by Dr. Fielden. I chose this anaesthetic because I am usually able to complete the operation in two or three minutes, but I was not prepared for the size of the prostate in this case.

After-History.

The patient suffered from very severe shock, and was with great difficulty kept alive for some hours after the operation, but he made a good rally, and is now—ten days after—doing well. There was also found in the bladder a pretty specimen of mulberry calculus about the size of a small marble.

The only prostate approaching this in size of which I am aware is one mentioned by Mr. Freyer,[1] which weighed 14½ oz. Mr. Freyer says that this was the largest prostate he had removed, and that the labour involved in its removal was very severe. The operation took fourteen minutes, and his fingers, hands, and arms ached for two or three days after. I can endorse this statement as regards my own case. The muscular exertion was certainly very severe.

There are two points in my case besides the size of the prostate. First, the comparatively comfortable time the patient had had with his urinary organs up to the time of this illness, though the prostate must have been of great size for years; and secondly, the condition of his circulatory system, which in my opinion almost precluded the idea of any operative measures whatever.

REFERENCE.
[1] *Surgical Diseases of the Urinary Orga„s*, . 165.

* The paper was read and the specimen shown before a meeting of the Ulster Branch of the British Medical Association.

THE SCIENCE COMMITTEE
OF THE
British Medical Association.

REPORT CXIV.

TWO CASES OF JEJUNAL ULCER FOLLOWING GASTRO-JEJUNOSTOMY,

IN ONE OF WHICH GASTRIC ANALYSES WERE MADE BEFORE AND AFTER OPERATION FOR JEJUNAL ULCER.*

BY HERBERT J. PATERSON, M.B., B.C.CAMB., F.R.C.S.,
ASSISTANT SURGEON, LONDON TEMPERANCE HOSPITAL.

NOTWITHSTANDING all that has been written in recent years on the subject of gastro-jejunostomy, there remains at least one problem in connexion therewith in need of further investigation and elucidation. The fear of the possible occurrence of a jejunal ulcer still casts a shadow, faint, it is true, over the otherwise admirable results which follow this operation when performed in appropriate cases. It is of the utmost importance that all instances of this condition should be published, in order that we may have all the available material from which to draw conclusions as to the etiology of this condition, as to the best methods of preventing it, and of treatment should it occur.

The notes of the following case which has been under my care are of interest, as it is, so far as I can gather, the first case in which an attempt has been made to obtain an accurate analysis of the gastric contents, and of the fluid escaping from a jejunal fistula before and after operation for ulcer of the jejunum.

CASE I.—*Anterior Gastro-jejunostomy for Pyloric Stenosis: Perforation of a Jejunal Ulcer Five Years later: Resection of Affected Portions of Jejunum, and Anterior Gastro-jejunostomy "en Y."*

H. I., married, aged 47, was admitted into the London Temperance Hospital on August 21st, 1902, under the care of my colleague, Dr. Soltau Fenwick, suffering from pain after food, vomiting, and loss of flesh.

The patient stated that she had always been healthy until two years previously, when she began to suffer from pain after food, which gradually increased in severity, and she had lost 3 st. in weight. For one year she had suffered from vomiting, usually two or three times weekly, large quantities of undigested food being brought up. On admission the patient was much wasted and weak, and weighed 6 st. 5 lb. instead of 9½ st. The stomach was markedly dilated, the lower border reaching a handbreadth below the umbilicus. There was constant visible peristalsis and a marked succussion splash. At the level of the umbilicus close to the outer border of the right rectus muscles there was a hard movable lump rather larger than a walnut. There was a marked free hydrochloric acid reaction in the stomach contents after a test breakfast, and also in the contents of the fasting stomach. Lactic acid was not present. Dr. Fenwick thought that the dilatation of the stomach was due to cicatricial stenosis of the pylorus, and asked me to see the patient with a view to operation. The patient declined to have anything done, and left the hospital on August 27th. On September 6th the patient returned, looking a good deal worse, and stating that she had been vomiting constantly. She had lost over 4 lb. in weight, and now readily consented to operation.

First Operation.

On September 8th I opened the abdomen. The stomach was large and much hypertrophied. In the region of the pylorus was a densely hard mass, about the size of a walnut, and situated mainly in the posterior wall. There were no adhesions and the lump was freely movable. Anterior gastro-jejunostomy was performed by means of a single layer of Halsted sutures, the opening made measuring 2 in. The pylorus was explored from within, and a dense, almost complete, stricture was found. The patient made an uninterrupted recovery, and left the hospital three weeks later. This was one of my earlier gastro-jejunostomies, and I must admit at the operation I thought the pyloric lump to be malignant, and I proposed to reopen the abdomen, remove a portion of the lump for microscopical examination, and if, as I anticipated would be the case, the lump were malignant, perform partial gastrectomy. Clearly I was wrong in my opinion, but fortunately the patient felt so well that she declined to have any further operation.

After-History.

Two years later—in August, 1904—I saw the patient again. She then told me that she had never had a day's illness or pain of any kind, and that she was able to eat ordinary food. She looked a different being, and weighed 9 st. 4 lb., a gain of over 3 st. The abdominal wound was soundly healed, and no trace of the pyloric lump could be felt.

On August 13th, 1907, the patient was readmitted into the hospital. She stated that ever since the operation she had enjoyed excellent health. Two years before readmission she began to have some pain after food, but the pain was not severe and did not cause her much inconvenience. During the previous nine months the pain had increased, nevertheless she continued to eat all kinds of food—cheese, tinned foods, etc. For three months she had noticed a lump forming in the abdominal wall above the umbilicus. On August 13th the skin over the lump gave way, and much yellowish fluid escaped. She was seen by Dr. Percy Edmunds, who at once sent her into the hospital.

The patient looked exceedingly well, and had become very stout, and weighed over 12 st. Midway between the umbilicus and the ensiform cartilage, immediately to the left of the middle line, was an aperture in the abdominal wall, with shelving indurated edges, from which escaped a turbid yellowish fluid apparently containing bile. Around the aperture there was considerable induration, and the skin for some distance around was much thickened. A diagnosis of perforated jejunal ulcer was made. As the patient was so well nourished, I thought that it would be advisable to postpone operation with a view to getting the skin into a more healthy condition, and also to reducing the gastric acidity, and rendering the intestinal contents sterile by keeping her on an exclusively milk diet. This period of waiting was utilized to make a series of examinations of the gastric contents, and of the fluid escaping from the fistula. The examinations were as follows:

August 20th. Test breakfast. One hour later stomach contents drawn off, 110 c.cm.

Total acidity, 85.	
Total chlorides	0.433
Free HCl	0.072
Protein HCl	0.208
Mineral HCl	0.153

During the digestion of the test breakfast and for half an hour later the fluid escaping from the fistula was collected and analysed, with the following result:

Total chlorides	0 405
Free HCl	0.044
Protein HCl	0 175
Mineral HCl	0.186

On August 27th, after patient had been on a milk diet for a week, the analysis of the gastric contents was as follows:

Total acidity, 80.	
Gmelin's reaction absent.	
Total chlorides	0.361
Free HCl	0.018
Protein HCl	0 187
Mineral HCl	0.146

At the same time 60 c.cm. of fluid was collected from the fistula.

Gmelin's reaction present.	
Total chlorides	0.372
Free HCl	0.004
Protein HCl	0.092
Mineral HCl	0.276

September 3rd 70 c.cm. fluid collected from fistula.

Total acidity 60.	
Total chlorides	0.401
Free HCl	0.004
Protein HCl	0 109
Mineral HCl	0.292

Second Operation.

On September 5th, 1907, an oval incision was made through the skin around the fistula, and carried downwards through the fasciae and muscles. The peritoneum was cut through in the middle line well below the fistula, and a finger introduced into the peritoneal cavity. The jejunum was found adherent to the abdominal wall for some distance on either side of the fistula. The fistula was plugged with gauze, and the peritoneum carefully cut through clear of the area adherent to the jejunum. It was then apparent that the fistula led directly into the efferent limb of the jejunum 1 in. below the site of the anastomosis with the stomach; 6 in. of jejunum, including the perforated ulcer and the skin attached to it, were resected. After separating the jejunum from the stomach, the opening in the stomach measured 1 in. by ½ in. This opening was enlarged, and the distal end of the jejunum implanted into it; the proximal end of the jejunum was implanted into the side of the jejunum 4 in. below the anastomosis with the stomach. Both anastomoses were performed by means of two continuous sutures. Great difficulty was experienced in suturing the abdominal wound, as after removal of the fistula and dense hard tissue around it there was a considerable interval between the edges of the wound. It is interesting to note that all trace of the pyloric lump felt at the first operation had disappeared.

After-History.

The patient made an uninterrupted recovery, and on October 12th, after a test meal, 150 c.cm. of gastric contents were drawn off and analysed.

Total acidity, 59.	
Gmelin's reaction absent.	
Total chlorides	0.302
Free HCl	0.007
Protein HCl	0.164
Mineral HCl	0 138

* Part of a paper read before the Surgical Section of the Royal Society of Medicine on May 11th, 1909. The expenses of the investigations referred to in the course of the paper were defrayed by a grant from the Science Committee of the British Medical Association.

She left the hospital in excellent health on October 12th, weighing 9 st. 13 lb.

I did not see the patient again until August 26th, 1908. She then told me that she had remained quite well until a month previously, when she began again to suffer from pain in the epigastrium bearing no relation to food. On passing a tube in the early morning the stomach was found empty. After a test meal 40 c.cm. of gastric contents were drawn off, containing a good deal of mucus and some blood.

Total chlorides	0.430
Free HCl	0.032
Protein HCl	0.317
Mineral HCl	0.080

No lactic acid.

In view of the recurrence of hyperacidity and the presence of blood in the stomach I feared the recurrence of ulceration. When the patient left the hospital I had advised her never to take meat again, a warning which she had disregarded. I again cautioned her as to her diet, and prescribed bismuth and alkalis. The patient so strongly objected to the use of the stomach tube, and was so alarmed at the sight of blood in the gastric contents that she discontinued attendance for some months, so I lost sight of her again, although I heard indirectly that she was better.

In February, 1909, I saw her again. She was then much better although occasionally she suffered from attacks of pain, usually coming on during the night, accompanied by an acid taste in the mouth, and not bearing any relation to food. Her weight was 10 st. 12 lb. There was no tenderness of the abdomen, the abdominal scar remained soundly healed, and the patient looked in excellent health. On bismuth and hydrocyanic acid she quickly lost her pain, and I believe that if only she would be more careful in her diet, she would remain well.

In a few of the recorded cases the total acidity of the gastric contents was estimated before operation, and in still fewer the amount of free hydrochloric acid, as estimated by Topfer's method, is noted. The estimation of free HCl by this method, however, is very inaccurate, and the amount of total acidity includes both organic and inorganic acids. The important point, it appears to me, is the amount of free hydrochloric acid present in the gastric contents, and this is well illustrated in the case just related. On admission into the hospital for the second time, the free HCl in the gastric contents was 0.072 per cent., more than three times the normal amount. The percentage of free HCl in the fluid escaping from the jejunal fistula—that is, in the jejunal contents—was 0.044, or more than double the amount normally present in the stomach. This observation appears to me of considerable significance with regard to the etiology of jejunal ulcer. Here we had evidence of the presence of a fluid rich in free HCl in a portion of intestine normally unused to the presence of acid contents. That under such circumstances ulceration should ensue is not surprising. The analysis of the gastric contents after a week on milk diet showed a very different state of affairs. The percentage of free HCl was then only 0.018, or just about normal, and the percentage of free HCl in the jejunal contents had diminished from 0.044 to 0.004. From these analyses we may, I think, draw the following nferences:

1. That the presence of an ulcer in the jejunum was connected with the large percentage of free hydrochloric acid present in the jejunal contents.

2. That as the high percentage of free hydrochloric acid in the gastric contents rapidly diminished to a normal amount on a milk diet, the excess of free hydrochloric acid in this case was probably due to errors in diet.

3. That the bile and pancreatic juices in the jejunum usually neutralize the free hydrochloric acid which escapes rom the stomach. When, however, free hydrochloric acid reaches the jejunum in great excess, the alkaline juices are insufficient to netralize all the free hydrochloric acid present.

Incidentally I may point out that although after a week on a milk diet the amount of free HCl had diminished by nearly two-thirds, the total acidity had diminished only from 85 to 80. This illustrates how little information Topfer's method gives us as to the amount of inorganic acids present in the gastric contents.

ASE II.—*Anterior Gastro-jejunostomy (May, 1899) for Pyloric Stenosis supposed to be Malignant: Recurrence of Pain Five Years later: Seven Years later Separation of Adhesions round Jejunum: Good Health until March, 1908: Death in September, 1908.*

Anterior gastro-jejunostomy by means of a Murphy's button was performed by the late Mr. Walsham in May, 1899, on a man aged 69 years suffering from pyloric stenosis, which was thought to be malignant. He remained well for nearly five years, but then began to suffer constant pain after food. He was sent to see me by Dr. Howard Distin, who thought that the pain was due to the irritation of the Murphy button, which, so far as was known, had never been passed. The patient's weight was 8 st. 6 lb., a gain of 3 st. since the operation. The stomach was somewhat dilated, and just above the level of the umbilicus there was a rounded induration in the left rectus muscle.

Under medical treatment the patient improved and remained well until the beginning of 1906, when he began to suffer severe pain in the left side, with occasional attacks of vomiting. I saw him again in July. He looked thinner and more careworn than when I last saw him, and he had lost 2 st. 4 lb. In the left rectus muscle was a tender nodular swelling about the size of a small Tangerine orange. A test meal showed the presence of free hydrochloric acid, a trace of lactic acid. An *x*-ray photograph did not show the presence of a button in the stomach.

Operation.

On July 20th I reopened the abdomen. There were adhesions at the pyloric end of the stomach. The pylorus was markedly stenosed, but all trace of the former tumour had disappeared. The anastomosed loop of jejunum was firmly fixed to the anterior abdominal wall for a distance of 2 in. There was considerable induration of the jejunal wall as if there existed, or had existed, an ulcer of the jejunum which had resulted in the adhesion of the jejunum to the abdominal wall. The separation of these adhesions would have involved an extensive operation, which I did not think justifiable in view of the patient's age. The other adhesions were divided, and the abdominal wound sewn up.

After-History.

The patient remained well until March, 1908, when his appetite began to fail. He suffered no pain, but he vomited occasionally. I saw him again in July. The stomach was then considerably dilated, and there was marked stomach splash. It was evident that the stomach was not emptying itself properly. With occasional lavage he improved for a time, but later his strength gradually failed, and he died in September, 1908.

Through the courtesy of Dr. Distin I was able to examine the abdominal viscera. On opening the abdomen an interesting state of things was found. The stomach was enormously dilated and flabby. High up towards the cardiac end the button could be plainly felt loose in the cavity of the stomach. The anterior wall of the stomach had been drawn downwards and backwards, so that the site of the anastomosis was posterior rather than anterior. Although an anterior operation with a long loop had been performed, the length of the afferent limb from the ligament of Treitz to the junction with the stomach now measured 4 in. only, and it emerged from under the colon near the splenic flexure. Until a careful examination had been made it was difficult to believe that an anterior and not a posterior operation had been performed. The stomach was distended with formalin and examined at a later date. When the stomach was opened I found that the anastomotic opening was much contracted and admitted only the tip of the little finger, and was surrounded with a considerable amount of indurated tissue. In the jejunum just below the anastomosis the mucous membrane was puckered as if the site of an old ulcer, and microscopical examination showed old chronic inflammation. The pylorus was indurated and almost completely stenosed, so that its lumen was diminished to the size of a cedar pencil.

This case bears out a view I expressed some years ago—that, after the anterior operation, the afferent limb, although at the time of operation it is drawn up round the colon, becomes later displaced outwards so that it emerges from under the colon at or near the splenic flexure. Nature thus appears to protect the afferent loop from the influence of the excursions of the movable part of the transverse colon.

REPORT CXV.

THE CARBON MONOXIDE METHOD OF DETERMINING THE TOTAL OXYGEN CAPACITY AND THE BLOOD VOLUME IN ANIMALS:

WITH SOME EXPERIMENTS ON ANAEMIA AND TRANSFUSION.

BY

A. E. BOYCOTT, M.D., B.CH.OXON. and C. G. DOUGLAS, M.B., B.CH.OXON.

[FROM THE PATHOLOGICAL LABORATORY, GUY'S HOSPITAL.]

THE carbonic oxide method of determining the total oxygen capacity and the blood volume described by Haldane and Lorrain Smith[1] has been applied to experiments on rabbits. Using the apparatus previously described by Douglas,[2] we find that this can be done with a considerable degree of accuracy.

1. In a series of experiments, we have withdrawn from or added to the circulating blood of a rabbit a quantity of

blood of known oxygen capacity, as determined by the haemoglobinometer, with the following results:

C.cm. O_2 Capacity Before.	C.cm. O_2 Capacity Removed or Added.	C.cm. O_2 Capacity After.		
		Calculated.	Found.	Difference.
15.9	− 5.7	10.2	10.0	− 0.2
26.7	− 6.6	20.1	18.6	− 1.5
16.8	− 6.9	9.9	10.4	+ 0.5
21.5	− 5.95	15.55	15.4	− 0.15
13.0	− 4.8	8.2	8.7	+ 0.5
21.3	+ 6.1	27.4	27.8	+ 0.4
22.5	+ 6.5	29.0	28.5	− 0.5
26.0	+ 7.05	33.05	32.5	− 0.55

2. In another series we compared the total oxygen capacity as found by this method with that calculated colorimetrically by bleeding the animal to death, washing out the vessels, and subsequently mincing and extracting the tissues (Welcker's method). The results were not

Total Oxygen Capacity.		Difference per Cent.
CO Method.	Welcker's Method.	
21.0	19.4	+ 8
17.8	14.8	+ 20
16.1	14.7	+ 10
24.7	21.3	+ 16
23.3	23.3	± 0
26.05	30.55	− 15
21.0	21.1	− 0.5
		+ 5.5

altogether satisfactory; the CO method appears to give results somewhat too high, but we have not been able to make out the reason.

3. In three animals we studied the sequence of events following a single severe haemorrhage. The chief points

Weight.	Total O_2 Capacity Before Bleeding.	Amount bled.		Days till Original O_2 Capacity was Regenerated.	Ultimate O_2 Capacity Reached.	In Days After Bleeding.
		C.cm. Blood.	C.cm. O_2 Capacity.			
I. 2,180...	16.1	41.5	5.7	27	19.5	53
II. 2,450...	15.9	48.0	6.9	19	20.4	55
III. 2,170...	13.4	44.5	4.8	27	17.6	49

which arise are: (1) In the days immediately following the haemorrhage the blood volume may be considerably increased over the normal; (2) the percentage oxygen capacity (haemoglobinometer readings) is a very uncertain index of the rate and degree of regeneration; (3) over-regeneration occurs; (4) the rate of regeneration may be quantitatively followed day by day in the intact animal; over the whole period of regeneration it varies from 0.18 to 0.36 c.cm. O_2 capacity (0.13 to 0.27 gram haemoglobin) per day, sometimes being as great as 0.41 c.cm. (0.31 gram) per day.

4. In other three animals we followed the effects of repeated haemorrhage. We did not obtain any permanent dilution of the blood, as was found by Lorrain Smith in human cases of haemorrhagic anaemia.[3] The chief points of interest are the large amounts of blood which may be removed with impunity and the rapid regeneration which occurs. At some points this reached the high figure of 2.2 c.cm. O_2 capacity (1.65 grams haemoglobin) per day.

Weight.	Total Oxygen Capacity.		Amount bled.		C.cm. Oxygen Capacity Regenerated.	
	Before Bleeding.	After Bleeding.	C.cm. O_2 Capacity.	In Days.	C.cm. O_2 Capacity.	C.cm. per Day.
I. 2,420...	16.2	18.5	49.9	47	52.2	0.870
II. 3,010...	18.6	26.0	28.9	23	36.3	0.527
III. 3,575...	26.65	23.5	23.8	6	20.65	0.941

5. Aniline poisoning is not altogether suitable for study by this method since the blood becomes yellow and muddy. We found, however, that the apparent anaemia as judged by the haemoglobinometer is greater than the real loss of haemoglobin owing to a marked increase in the volume of the blood.

Date.	Weight.	Total O_2 Capacity.	Percentage O_2 Capacity.	Volume of Blood c.cm.	Treatment.
March 26	3,120	19.5	12.0	163	
„ 28	3,250	21.2	10.9	195	
„ 30	3,020	20.9	13.2	158	0.2 c.cm. aniline daily from Mar. 30th to April 4th.
April 2	2,970	17.5	12.8	137	
„ 4	3,000	19.6	11.2	175	2.0 c.cm. aniline April 6th.
„ 8	2,980	12.4	5.7	217	
„ 10	2,900	10.1	2.8	360	
„ 13	2,820	10.5	3.8	276	
„ 16	2,670	13.2	5.1	260	
„ 24	2,450	10.6	6.5	163	
March 29	2,680	19.8	11.3	175	

The total O_2 capacity was actually halved, while the haemoglobin readings fell from 65 on the human scale to 15 instead of 32.

6. In a case of marked anaemia associated with suppuration, which arose fortuitously in a rabbit which was in hand, we found a marked instance of chlorotic anaemia associated with some loss of total haemoglobin.

Date.	Weight.	Total O_2 Capacity c.cm.	Percentage O_2 Capacity c.cm.	Blood Volume c.cm.	Remarks.
May 14	3,200	23.0	12.0	192	
„ 22	3,080	23.2	12.95	179	
June 2	3,070	19.5	9.25	210	
„ 4	3,000	18.8	9.6	196	
„ 11	2,880	18.9	7.6	248	
„ 12	2,850	17.3	6.5	266	Obviously ill.
„ 13	2,740	15.3	6.7	228	
„ 15	2,820	13.6	4.9	277	
„ 18	2,620	13.5	3.05	443	Died June 18-19.

The blood volume here was more than doubled, and the haemoglobin fell to 16, though in proportion to the real loss in total haemoglobin it should not have fallen below 39.

7. In three animals we made a series of observations on the fate of rabbits' citrated blood transfused into rabbits. In this series on the whole the haemoglobinometer gives a fairly accurate measure of the total haemoglobin, though we met with some marked exceptions in detail. The chief points ascertained are (1) an accurate measure of the rate of disappearance of transfused blood; (2) the fact that a second transfusion disappears much more quickly than the first. The details of this are still occupying our attention. We may say here, however, that there are no external signs of haemolysis, and the serum is not haemolytic to rabbits' red cells.

Weight of Animal.	Total O_2 Capacity before Transfusion.	First Transfusion.			Second Transfusion.			Third Transfusion.		
		Amount Transfused.		Normal reached in Days.	Amount Transfused.		Normal reached in Days.	Amount Transfused.		Normal reached in Days.
		C.cm. Blood.	C.cm. O_2 Capacity.		C.cm. Blood.	C.cm. O_2 Capacity.		C.cm. Blood.	C.cm. O_2 Capacity.	
3,750	21.9	52	6.5	8	61	8.01	4	60	5 4	2
3,600	25.9	56	7.05	16	80	9.2	5	70	9.3	7
2,600	21.8	51	6.1	12	63	6.6	5	—	—	—

8. Incidentally we have obtained a number of measurements of the total oxygen capacity and blood volume in normal rabbits, which may be summarized as follows:

	Body Weight, Grams.	Percentage Oxygen Capacity	Total Oxygen Capacity	Blood Volume.	Per 100 Grams c.cm. Blood.	Body Weight, c.cm. Oxygen Capacity
Average of 3 males	2,490	14.2	19.5	138	5 51	0.780
Average of 12 females	3,115	13.0	21.7	170	5.44	0.697
Maximum..	4,040	16 8	28.7	337	8 6	0.97
Minimum..	2,090	8 5	12.0	84	3.8	0.53

9. The chief results of immediate practical import are three in number. In the first place, the general accuracy of the Haldane–Lorrain Smith method is fully established. In the second place, we have found several examples (after haemorrhage, aniline poisoning, spontaneous anaemia) in which the degree of anaemia indicated by the haemoglobinometer is more profound than the actual deficiency of haemoglobin existing at the time—cases, in short, in which the pathological condition is, as it is in chlorosis, in part a dilution rather than a defect of blood. Thirdly, it is shown that transfusion, if practised as a therapeutic measure, can only be done once on the same individual with much prospect of benefit; the second and subsequent lots of transfused red corpuscles are disposed of so quickly by the recipient that they cannot be of much use.

REFERENCES.
[1] *Journal of Physiology*, vol. xxv, 1900, p. 331. [2] Ibid., vol. xxxiii, 1906, p. 493; and vol. xxxiv, 1906, p. 210. [3] *Trans. Path. Soc.*, vol. li, 1900, p. 328.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

TREATMENT OF GONORRHOEA BY ALLOSAN.

SANTALOL preparations have been widely used for the treatment of gonorrhoea; indeed, of the liquid esters of this drug there is no lack, but only recently has a santalol preparation in a solid form been put upon the market under the name of "allosan," which is the allophanic ester of santalol, and has the formula NH_2 CO NH CO OC_{15} H_{23}. It is a white powder of a mild aromatic odour, tasteless, and non-irritating to the mucous membranes of the mouth and oesophagus; it is split up in the intestine, where it does not produce any irritative effect, the separation of santalol beginning after about two hours. A suitable dose is 15 grains three times daily, although in some cases I have given 20, and even 30, grains thrice daily without any harmful effect. I do not wish to claim that allosan is different in its action to santalol, the medicinal active component of East Indian sandalwood oil. It is not, of course, a substitute for the local treatment of gonorrhoea with or without complications, but it is a valuable adjuvant to local treatment. Its action seems to be to diminish the secretion and relieve the irritation in acute uncomplicated as well as complicated cases (cystitis colli posterior urethritis).

The following are brief notes of some cases in which this drug was used:

Mr. J., aged 20, complained of burning pain on passing water, and inability to sleep owing to painful erections; there was a thick yellowish discharge and painful enlargement of the right testicle; this condition had lasted for ten days without medical treatment. Allosan 15 grains was prescribed in powder three times daily, while locally the orchitis was treated with belladonna and glycerine. In ten days the discharge was practically gone, only a thin, watery, scanty discharge occurring early in the morning; after another four days' treatment the discharge had entirely disappeared and the chordee had ceased. In this case I was satisfied with allosan and glycerine of belladonna, and no injections were given. The patient returned in three weeks and reported that he was quite free from any further symptoms or signs.

Mr. S., aged 28, complained of severe scalding during micturition; a thick discharge had been present for a fortnight; he had been under medical treatment without appreciable relief. Allosan 30 grains was ordered as powder four times daily. In four days the discharge was much thinner, he passed water with considerably less pain, and slept better. The treatment was continued for another five days, when the discharge was watery and scalding pain during urination had nearly gone. The treatment with allosan was continued for another ten days, with injections of protargol 2 per cent., and at the end of this time the patient was quite well.

I have selected these two cases as typical examples of gonorrhoea. I have now treated about 30 cases of gonorrhoeal infection in man with allosan, and the result has been uniformly successful. In the majority of cases towards the end I have, of course, used injections; but that does not diminish the value of the good results obtained by the allosan treatment in the early stage of the infection.

JOHN R. O'BRIEN, M.D., F.R.C.S.Irel.
North Kensington, W.

LACTIC ACID BACILLI IN THE TREATMENT OF MELANCHOLIA.

FORD ROBERTSON, whose recent brilliant researches in association with McCrae in regard to the etiology of general paralysis of the insane have created so much discussion, assigns to toxaemic states a large value in the causation of melancholia. (As a curious recapitulation of the dogmas concerning "black bile" of olden times may be noted the modern ideas of toxins.) Maudsley, Clouston, and many others have noted the invariable concomitance between disordered conditions of the alimentary canal and melancholic states. The latter, it is true, are frequently looked upon as causes, the former as effects. But, for the sake of argument, let us assume a contrary hypothesis.

Last summer it was stated in the BRITISH MEDICAL JOURNAL that the lactic acid bacilli or their product soured milk, or tablets containing the bacilli, had been tried in such conditions as chronic diarrhoea, catarrhal diarrhoea, constipation, etc., and their method of operation was not empirical, but was based on the hostile influence of the lactic acid bacilli on the other organismal denizens of the intestine. The results were gratifying. It occurred to me that, this inimical action having been proved, the lactic bacilli or their products might well have a beneficial effect in melancholia, the reasoning leading to this conclusion being as stated above. In discussing the matter with Dr. David Hunter, of the West Ham Borough Asylum, I found that the same idea had occurred to him.

Having tried the treatment by tablets containing the bacilli and by prepared milk, I have observed such improvement in the cases as to warrant a short note on the subject. In one case in particular the result has been marked—an example of hypochondriacal melancholia exhibiting such typical symptoms as would have marked him inevitably for inclusion in his categories by Burton: "His soul abhorred all meat. Like Job, he cursed his stars. He was weary of the sun, and yet afraid to die;

vivere nolunt et mori nesciunt." He had the jaundiced eye, the sallow complexion, a more than ordinary constipation. At first the bowels were moved with difficulty, and only when strong purgatives were used. He was given soured milk and bacillary tablets; and the result must be described as satisfactory. Now the bowels move easily (though he will not, by the way, admit that this is so), the complexion has cleared in a marked degree, and in the space of three months he has increased his weight by 11 lb. I do not imagine that ordinary aperient treatment would have wrought this change. Mentally he has become brighter, has taken more interest in his surroundings, has read the papers and books provided, and has conversed freely with his neighbours. In other cases I have noticed beneficial results, but not in such marked degree, though, on the other hand, they were not such profoundly melancholic cases as the one I have mentioned. The cases have been too few in number and the treatment has been carried out for too short a time to warrant me in making any generalization, and my sole object is to suggest that this method of treatment may be given a trial by those better qualified than myself to carry it out, and also with more material for observation to their hands.

HUBERT J. NORMAN, M.B., D.P.H.Edin.,
Assistant Medical Officer, Camberwell House Asylum.

ETHYL CHLORIDE AS AN ADJUVANT TO NITROUS OXIDE WHEN ANAESTHESIA THROUGH THE NOSE IS DIFFICULT.

CASES in which induction of anaesthesia through the nose by nitrous oxide is difficult or impossible are by no means uncommon in dental work. The administrator may either quickly change the nasal for the ordinary apparatus, be content to give the operator a very short anaesthesia and so disappoint the patient, or else he may stop and explain the position to him and administer ethyl chloride or some other anaesthetic by means of an inhaler covering both nose and mouth. In either case he will lose such benefit as it is possible to gain in induction and maintenance of anaesthesia by the amount of nitrous oxide that can pass through the nose.

It is a great advantage at such times to be able straightway to carry over the patient from his half-stupid condition under the small amount of nitrous oxide inhaled to a light or even deep anaesthesia under ethyl chloride without disturbing him by a change of apparatus, and to have a better chance of being able, when he is once well anaesthetized by ethyl chloride, to continue the anaesthesia by nitrous oxide. I have therefore had made a mouth inhaler, the mouthpiece of which is wholly of metal and fashioned to fit closely to the mouth when kept open by a dental prop; to this mouthpiece is attached a very short wire cage fitted with a rubber bag with a capacity equal to that of a Clover's inhaler. It will stand face uppermost—for example, on a table close to hand.

When needed for use, and while the nosepiece is still applied, 2 or 3 c.cm. of ethyl chloride are sprayed by the anaesthetist's left hand into the bag, which is quickly applied to the patient's face, and he is asked to take a few breaths through the mouth. He will usually not notice the change of anaesthetic, and as there is generally some passage of nitrous oxide through the nose, the bag will gradually become filled with a mixture of ethyl chloride and nitrous oxide, which becomes more dilute as the patient goes under, and a very satisfactory form of anaesthesia, lasting from one to two minutes, is quickly reached. Thus the operator is enabled to do a good deal of work. At times it is impossible to prolong the anaesthesia by means of the nitrous oxide sufficiently, and there is then no objection to a fresh dose of ethyl chloride. If necessary the ethyl chloride may be followed by the addition of ether to strips of gauze attached to the wires and projecting into the bag.

I have several times found this method very useful, and it has already once saved me from the necessity of administering ether. Messrs. Barth, 54, Poland Street, London, have carried out my idea of the inhaler very neatly.

W. J. MCCARDIE, M.B., B.C.,
Anaesthetist to the General, Dental, and Ear and Throat Hospitals.
Birmingham.

A LARGE DOSE OF SULPHONAL.

SINCE sulphonal was first brought to the notice of the profession in 1887 warnings have so frequently been given as to the danger of its administration in anything over 30 grains, that the following case of an extraordinarily large dose is of some interest.

I was called to see a man, about 30 years of age, who was said to have been asleep for twenty-four hours and could not be roused. His mother, an infirm woman, was the only other occupant of the house, and said that her son had gone out the day previously and purchased a bottle of 100 Burroughs, Wellcome and Co.'s 5-grain sulphonal tablets. On returning home he had swallowed two handfuls of them. On arrival I counted 51 tablets remaining in the bottle and assume that he had taken the other 49, or 245 grains. He had previously had some consolidation of the right apex, and owing to this had lost his post, and become very depressed. There is little doubt that he took the tabloids with intent to commit suicide.

When I saw him he was lying curled up on his right side. The pulse was 68 and respirations 20. The pupils were normal in size, but did not react to light. The patella tendon reflex was somewhat difficult to elicit. The tongue was foul and there was a patchy erythematous rash. On being roused he turned his head, scowled, buried his head once more in the pillow, and relapsed into somnolence. He remained in this condition for five days, only rousing occasionally to take a little warm milk, and once in the twenty-four hours to pass water into a bottle. There was no incontinence and his bowels were not opened until the sixth day. The urine at no time contained any haematoporphyrin. The pulse and respiration kept good all the time, although the pulse became weaker as the days went on. After remaining in a condition of stupor for 120 hours he gradually regained consciousness, sat up in bed and took some beef tea. There was no marked loss of power in the limbs following his sleep, and in a few days he was about again.

That he came out of his adventure so lightly was probably due to the slow dissolution of the tabloids. The stools afterwards contained no signs of them. His condition presented no symptoms to cause any alarm, and the treatment was purely expectant.

H. C. L. MORRIS, M.D.Brux.,
M.R.C.S., L.R.C.P.
Bognor.

Reports
ON
MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

GRAVESEND HOSPITAL.

(Two cases reported by SYDNEY W. MILNER, M.R.C.S., House-Surgeon.)

CASE I.—*Dilated Gall Ducts in a Child.*

J. G., aged 4, was admitted on January 13th last, with jaundice and abdominal swelling. He had been quite well until four months previously, when he had an attack of jaundice, which quickly passed off.

The spleen was greatly enlarged and firm. The liver was also much enlarged, hard, and the surface felt granular. The edge was very sharp, and could easily be grasped. On the right side of the abdomen, and separated from the liver dullness by a band of resonance, was another large dull area extending downwards into the right iliac region, and occupying the right flank. The dullness did not shift with change of position, and fluctuation could be detected. The urine contained bile and albumen. The faeces were clay-coloured.

A fortnight after admission the child had severe pain and rise of temperature. The pain was localized to a spot to the right of the notch for the gall bladder. At this time an aperient produced a stool the first half of which was clay-coloured and the second half blood-stained. Pain did not recur again until a fortnight later, when the temperature rose to 102.4°. At this time it was noticed that a swelling had appeared at the site of the pain over the right lobe of the liver, like the pointing of an abscess, but

without inflammation of the skin. The child was anaesthetized with chloroform, a small quantity producing deep anaesthesia, and the swelling incised, giving exit to about a pint of bile-stained, inoffensive, serous fluid, which, from the way it escaped, had evidently been under pressure. The acute pain was considerably relieved by the operation. A large quantity of bile-stained, serous, albuminous fluid escaped daily into the dressings. On the seventh and eighth days after operation there was copious haematemesis of dark tarry blood. Death occurred on the ninth day from exhaustion. It was noticed that the size of the abdomen became greatly reduced after death.

Post mortem the skin incision was seen to open into a small abscess-like cavity to the right of the fundus of the gall bladder. The omentum was turned up and was adherent to the under surface of the diaphragm and the upper surface of the liver. The liver was very hard, enlarged, of a dark-greenish hue, with thickening of the capsule. The cut surface showed many bands of fibrous tissue surrounding larger or smaller green pigmented masses of liver tissue. The intestines were adherent on the right side of the abdomen to a whitish, thick-walled, fibrous sac, which extended downwards into the right iliac fossa, and upwards, narrowing as it went, to the under surface of the liver. In separating the adhesions the sac was inadvertently opened, and thick, purplish fluid escaped. The pancreas was dissected out; it was very firm, and the pancreatic tissue of the head of the gland was seen to be spread out upon the surface of the sac of fluid. The liver and sac were next removed together and more carefully examined. The gall bladder was not enlarged, but was white and thickened and empty. The cystic duct, which was also thickened, opened by a pinhole into the large sac, and the latter was found to communicate by dilated branching ducts with the hepatic ducts within the liver substance. Evidently the cyst had not been opened at the operation, but another collection of fluid had been tapped. The duodenum was searched for the opening of the common bile duct, but this was not certainly discovered. The spleen was firm and enlarged.

Microscopically examined, the liver showed multilobular cirrhosis, with bile staining. The fibrous tissue of Glisson's capsule was increased, and there was proliferation of the bile ducts, but no recent inflammatory change. The pancreas contained increased fibrous tissue, but was otherwise normal. A lymph gland showed signs of chronic inflammation. There was no evidence of new growth. During life a diagnosis of cirrhosis of the liver was made, with dilated gall bladder. Undoubtedly this was a case of dilated gall ducts. The questions why the gall bladder escaped dilatation, and whether the pathological process began in the pancreas, arise.

Case II.—*Sarcoma of Both Kidneys in a Child.*

E. B., a girl aged 4 years 9 months, admitted on February 22nd, 1909, with abdominal swelling, had been well until one month previous, and had had no children's complaint. The father, mother, and remaining children were all healthy.

On admission the child was listless and anaemic. The face, hands, and feet were oedematous. The abdomen was swollen and prominent in the umbilical region, where a distinct swelling could be felt, resonant on percussion. Both kidneys were enlarged, easily palpable, and smooth. The urine was scanty, and showed a thick cloud of albumen on boiling.

The child became gradually worse, and died rather suddenly after drinking milk on March 3rd, 1909.

Post mortem the abdomen contained some free purulent fluid with clots of yellow lymph. The intestines in the umbilical area were matted together by adhesions around a soft white tumour. On attempting to separate them a mass of the swelling easily came away, opening up the lumen of the gut. Both kidneys were greatly enlarged, white and soft. The ureters were not dilated. On section the capsule peeled easily, revealing a smooth, yellowish-white cortical region spotted with dark blood vessels. The kidney substance was replaced almost entirely by the new growth. There were small secondary deposits on the surface of the liver.

Microscopically the growth was a small round-celled sarcoma.

Reports of Societies.

MEDICAL SOCIETY OF LONDON.

Monday, May 17th, 1909.

Charles Barrett Lockwood, F.R.C.S., President, in the Chair.

The Annual Oration.

Dr. H. D. Rolleston delivered the annual oration, entitling his address the Classification and Nomenclature of Diseases, with Remarks on Diseases due to Treatment. Definitions, he declared, were a weariness unto the flesh and the framing of them an intellectual exercise which necessarily often resulted in a compromise. In dealing with diseases due to treatment, he pointed out the serious nature of the consequences resulting from the use of the Roentgen rays in certain conditions. The effect of *x* rays on the skin and other parts of the body provided an example of a group of morbid changes produced by a new method of treatment. The dermatitis was somewhat analogous to sunburn and the occurrence of malignant disease to Kaposi's disease or the appearance of multiple squamous-celled carcinomas in freckles. Considerable interest attached to the production of sterility as a result of exposure to *x* rays; that result was probably commoner than was known, for the absence of spermatozoa from the semen thus produced was not accompanied by impotence; Brown and Osgood, indeed, found that condition of unsuspected sterility in eighteen persons who had been employed in manipulating *x* rays for half an hour to four hours three times a week for from two to six years—a very startling result. It had been thought that the active destruction of cells induced in the *x* ray treatment of leukaemia might do so much damage to the liver as to give rise to cirrhosis. Mosse had reported a case of lymphatic leukaemia cured by *x* rays in which the patient succumbed a year later to cirrhosis and ascites. Pleurisy with effusion had also been thought to be caused by exposure to *x* rays. Great interest attached to the pathological effects of horse serum, either when normal or when containing specific antibodies as in antidiphtheritic serum. The symptoms of the "serum disease," were usually trivial, and even though in exceptional cases they were severe, about nineteen deaths being on record, the benefits of serum therapy were so universal that the infinitesimal risks must be neglected. Recently it had been shown that the entrance of an alien serum into the blood gradually produced a condition of hypersensitiveness to a further dose of the serum. The condition of anaphylaxis, which was exactly the opposite of immunity, had been extensively investigated in the guinea-pig, and it had been shown that in guinea-pigs death, with widespread degeneration of the capillary endothelium and haemorrhages, might be brought about by a second injection of horse serum given after a certain interval. The guinea-pigs took about ten days for that hypersensitiveness to develop, but in human beings it appeared to take longer. Thus, if the interval between the two injections was from three to six weeks, there was an "immediate reaction," the symptoms of serum disease appearing within a few minutes to twenty-four hours instead of from seven to twelve days, as after a single injection. If the interval between the two injections was longer—three months or so, there was an "accelerated reaction," which appeared in five or six days. From the large amount of material under their observation Currie and Goodall had collected a considerable number of those reactions, but, fortunately, it did not appear that the results in man were likely to prove fatal, or that they were so severe as in experimental guinea-pigs. The importance of anaphylaxis or hypersensitiveness was far-reaching, for it occurred in connexion with injection of vaccines, and was thus the important factor underlying the positive reaction in the various tuberculin tests. In addition, the peculiar symptoms produced in some persons by eggs, and usually ascribed to idiosyncrasy, were probably examples of anaphylaxis, and it had been suggested that some cases of puerperal eclampsia were of that nature, and due to the absorption of the products of autolysis of the placenta.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Friday, May 7th, 1909.

DR. W. H. CHEETHAM in the Chair.

Caesarean Section.

DR. HELLIER read a paper on two cases in which Caesarean hysterectomy was performed for myoma uteri complicating pregnancy.

In Case I a lady of 35 had a myoma which obstructed the cervix. This had been watched throughout the pregnancy, but at term it was clear that the head could not enter the pelvis, and there were other nodules in the fundus. On January 22nd, 1909, a vigorous male child was removed by hysterectomy, and supravaginal amputation of the uterus followed, one ovary being left. The mother made an excellent recovery and suckled her own child. In Case II, a lady, aged 31, 1-para, had about twenty myomatous nodules in the uterus with obstruction of the cervix. She was operated on in almost exactly the same way as the previous case and made an excellent recovery. The child was a girl, weighing 5½ lb. The mother was not able to suckle it, but it had been reared after some difficulty.

The author considered that most cases of pregnancy complicated by myoma required no operation before delivery. When, however, the parturient canal was seriously obstructed operation was indicated in the interests of both mother and child. Great success attended Caesarean section under the best modern conditions.

Rupture of Abdominal Wall.

MR. BASIL HALL described the case of a man, aged 27 years, found lying in the road nearly an hour after a motor accident.

Shock was marked and several coils of small intestines were inside the trousers. There was a large ragged wound on the abdominal wall through which the gut had escaped. The viscera were partly replaced and covered over, and the patient conveyed to his home about a mile away. On examination the intestines were found to be intact, but in one loop the mesentery was cleanly split throughout its entire breadth from its root to the intestinal margin. There was a considerable retroperitoneal haematoma below the left kidney; the peritoneum was torn and the left kidney lifted forwards out of its bed. The descending colon was also lifted for a few inches from the posterior abdominal wall and the quadratus lumborum exposed. The viscera were carefully washed with saline solution and replaced, the various rents were sutured, posterior drainage established, and the abdominal wall repaired.

Idiopathic Mydriasis.

MR. MICHAEL TEALE showed a woman, aged 19, who three days previously had found her left pupil widely dilated and her left eye almost blind. No cause known. On examination the sight of this eye was found to be reduced to vague central vision of large objects, peripheral vision being lost. Pupil widely dilated and fixed, there being no reaction to light or convergence. No abnormality of fundus discoverable by the ophthalmoscope. Slight photophobia but no pain. Cross-examination failed to show that a mydriatic had been used either intentionally or accidentally.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.

Thursday, May 6th, 1909.

Mr. R. MARCUS GUNN, F.R.C.S., President, in the Chair.

Tubercle of the Choroid.

DR. G. CARPENTER discussed tubercle of the choroid in connexion with a series of cases.

The first was a child aged 7, which had been getting thinner, and was admitted to hospital with physical signs at the right apex, front and back. There was a history of abdominal pain, but no cause for it could be discovered by palpation. The child then became drowsy and comatose, with great wasting. There were six choroidal tubercles, and flecks of retinal pigment were scattered about them. Three of the tubercles were crossed by retinal vessels.

Another patient was a girl, aged 2 years. She had been ailing six weeks, and had had sickness and headache five days. When admitted she was suffering from meningitis and died on the sixth day. The right fundus was normal, and no tubercles or optic neuritis could be seen, but on the left side there was slight papillitis. Close to the optic papilla was a tubercle of considerable size, and several blood vessels crossed its face. The retinal arteries were small, nothing was noticed about the veins. The surface vessels of the brain were congested. The diagnosis was verified at the autopsy.

The next case was a boy, aged 17 months, who had much the same physical signs as the foregoing. He had meningitis, which was later corroborated by lumbar puncture.

A fourth case was a boy, aged 2, who had had a bad cough five weeks, and when admitted had consolidation at both apices. There was a small amount of papillitis in both eyes. He died twelve days after admission, no changes having occurred in the fundus in the meantime.

Several other cases of the kind were recorded, and the author then discussed the readiness which had been shown to attribute such appearances to syphilis, whatever evidence to the contrary might have existed. He urged early and systematic ophthalmological examinations, which would often render unnecessary spinal punctures or injections of substances to induce reactions. The paper was discussed by the PRESIDENT and by Dr. FREDERICK E. BATTEN, the latter commenting on the comparative infrequency of tubercle of the choroid in tuberculous children, and stating that he was under the impression that spinal puncture afforded a more certain indication than ophthalmoscopic observation.

Radium and Spring Catarrh.

Messrs. MACKENZIE DAVIDSON and ARNOLD LAWSON recorded a case of spring catarrh in a boy, aged 12, who suffered from chronic photophobia, lacrymation, and slight conjunctival discharge. It persisted for nearly a year, but no exciting cause could be discovered. Both tarsi were covered with dense, hard excrescences, closely aggregated, and separated by deep, narrow fissures. The retro-tarsal tissue was swollen and hypertrophied, and the viscid discharge was spread over the conjunctival surface. The disease was confirmed by examination of the discharge. All ordinary remedies having failed, Mr. Mackenzie Davidson was consulted as to the possibility of treating the case with radium. Such treatment was carried out for a year, each eye being treated eight times. No pain or other immediate effect was produced, but the granulations gradually subsided. After the eighth application he was quite cured, but a interval was allowed to elapse before publishing the case, so as to be sure there was no recurrence for a long time; 39 mg. of radium were used for fifteen minutes at first, and then 44 mg. Mr. Lawson thought few applications with a potent dose of radium were better than many applications with a weaker quantity. Mr. Mackenzie Davidson discussed the case, pointing out the importance of being sure the strength of radium used was what it was said to be, as he had found serious discrepancies. It was also very important to cut off those radium emanations which were not needed in the cure.

Atropine in Refraction Work.

Mr. R. R. CRUISE read a paper on the abuse of atropine in refraction work, based on an examination of 140 eyes in patients under 16 years of age. He concluded that, on the whole, homatropine and cocaine were quite equal, if not superior, to atropine, though in most cases the result after the two mydriatics was identical. Mr. DEVEREUX MARSHALL, in discussing the paper, alluded to Mr. Lang's investigations on the matter; and Mr. ERNEST CLARKE said it would have been useful to learn what the astigmatism was in the cases.

Mr. MAYOU read a communication on the disappearance of the iris from the pupillary area as a consequence of injury.

ROYAL SOCIETY OF MEDICINE.

CLINICAL SECTION.

Friday, May 14th, 1909.

Sir THOMAS BARLOW, Bart., in the chair.

Radium Treatment.

DR. N. S. FINZI exhibited two cases of malignant disease.

In the first case the patient, a woman aged 78, noticed about eight years ago that her left breast felt hard. About three years ago she had some pain and consulted her doctor, who removed the breast in April, 1906. About twelve months ago she noticed some hard lumps under the skin, and when seen at the Metropolitan Hospital by Mr. Peter Daniel in November, 1908, she had several masses about the size of walnuts firmly bound down in the centre of the scar and the axilla, and a couple of nodules under the skin at the lower end of the scar. Under *x*-ray treatment (four full doses to different parts of the scar) great improvement resulted, and the subcutaneous nodules disappeared. The patient, however, did not attend for some

weeks, and the growth again became rapid and much larger than in November. She had two more doses of *x* rays on February 24th and February 28th, 1909. From March 10th, 5 cg. of radium filtered through a silver tube 0.6 mm. thickness and 1 mm. thickness of india-rubber were applied over the large mass for fifty-three hours, the position of the tube being altered once. On March 12th a dose of forty-one hours was commenced in the axilla. The radium used was the pure bromide, and was contained in a little glass tube within the silver tube. A considerable dermatitis developed in the two places, commencing almost at once, and reaching a maximum in about three weeks. The area of this, however, was quite small, and could be excised if required. The tumour by April 2nd had almost disappeared except for a little thickening between the two places where the application had been made. That proved to be a definite nodule, and a dose of twenty-six hours with filters of 0.6 mm. silver and 1 mm. lead and six hours with 0.6 mm. silver was given, starting on April 29th.

The second patient was admitted to the Metropolitan Hospital in March, 1909, with a growth on the lower lip, 4.5 cm. in size. It had started as a pimple, which gradually became larger and became crusted over, and had been growing for fifteen or sixteen years. The rapidity of the growth had considerably increased for the last eight or ten months. There were enlarged glands under the jaw on both sides, but larger on the left than the right. Five cg. of radium bromide, filtered through 0.6 mm. silver, were applied to the growth for fifteen hours from March 1st, and the same quantity filtered through 0.5 mm. of silver and four layers of lint for twenty-eight hours from April 1st to the glands on the left side of the neck. Epilation was noticed on the neck about April 29th, and on the left side of the upper lip on May 5th. Considerable improvement resulted both in the growth and the glands. Commencing on May 4th, another application of twenty-four hours was given to the lip, the filter this time being 0.6 mm. silver and 0.5 mm. lead and two layers of lint.

Mr. GODLEE said it was difficult to understand how the radium applied at one small spot acted so satisfactorily. Mr. W. G. SPENCER gave details of a case of epithelioma of the tongue in which the glands of the neck became infected in spite of two months' treatment by radium in Paris. Mr. A. HOWARD PIRIE said that radium spread out on a pad was apt to lose its power, and Mr. PEARCE GOULD thought that there was little evidence of actual healing over of the growth. Dr. SHAW said that rom an examination he had made it appeared that the radium, whatever it was doing to the size of the growth, had not caused any difference in the carcinomatous cells. Dr. FINZI, in reply, said that in Paris they claimed to treat precancerous conditions.

Serum Diagnosis of Syphilis.

Dr. ALEXANDER FLEMING gave a demonstration of the serum diagnosis of syphilis by the "complement deviation" method. This differed from Wassermann's original method in the following respects: (1) An alcoholic extract of normal heart muscle is used instead of a saline extract of syphilitic liver. (2) The natural haemolytic power of human serum for sheep's corpuscles is made use of, thus doing away with the necessity for the haemolytic serum of a rabbit immunized against sheep's corpuscles and the guinea-pig's serum (complement). (3) The amount of blood which can be collected in an ordinary blood capsule will furnish an ample supply of serum for the test.

EXHIBITS.

The following were among the other cases exhibited: Mr. WALTER G. SPENCER: A case after reduction of an old subcoracoid dislocation of the right shoulder, complicated by fracture of the upper third of the humerus, by excavating the glenoid cavity through a posterior intermuscular incision. Mr. V. WARREN LOW: A case of pneumococcal cystitis and arthritis successfully treated by vaccine therapy. Mr. SIDNEY BOYD: A case showing Sprengel's deformity of the shoulder and Hirschsprung's disease, with definite rectal obstruction. Dr. F. PARKES WEBER: A woman three years after omentopexy and peritoneal drainage for chronic ascites connected with hepatic cirrhosis. The patient looked and felt well, and could walk long distances without fatigue. There was no ascites or oedema. Dr. DE HAVILLAND HALL and Mr. W. G. SPENCER: A girl, aged 8½ years, on whom splenectomy had been successfully performed for splenic anaemia (?). Mr. ARCHIBALD SMITH: A man, aged 40, with hernia of the right tibialis anticus muscle. Dr. F. J. POYNTON and Mr. W. TROTTER communicated a paper on the operation of cardiolysis, which was illustrated by a case they exhibited.

SECTION OF SURGERY.

Tuesday, May 11th, 1909.

Mr. WARRINGTON HAWARD, President, in the Chair.

AUTO-INOCULATION OF SYPHILIS.

IN a paper on this subject Mr. JONATHAN HUTCHINSON adduced 4 cases to prove the possibility of auto-inoculation at periods of from a few days to two months after the earliest recognition of the first chancre. Lambkin's statement that auto-inoculation was impossible later than ten days, was therefore incorrect. In one of the author's cases a second chancre appeared on the index finger, and was accompanied by axillary bubo, two months after a chancre on the prepuce, which was followed by general secondary symptoms and vigorously treated by mercury. Infection through the unabraded mucous membrane, seemed to him quite possible. He also detailed 7 cases of true second attacks of syphilis—chancre, rash, sore throat, etc.—at intervals of from eighteen months to twelve years after the first attack. The possibility of a second attack was only the expression of the efficiency of the treatment of the first; it was, therefore, obvious that reinfection might occur within two years of the primary infection. Two cases of acquired syphilis in the subjects of the congenital malady were brought forward and discussed. Mr. WARRINGTON HAWARD remarked that the most interesting point was the relation of reinfection to treatment; anything calculated to throw light on the relative value of the different systems of treatment was well worthy of further investigation. Dr. MCCULLOCH pointed out that the reactive processes at any site of inoculation, whether by staphylococcus or streptococcus or whatever organism, in tissues already the host of the spirochaete were necessarily very complex, and induration to be expected; was it certain, then, that the lesions described in the first four cases were really new primary chancres? Mr. HUTCHINSON, in reply, said that all his cases presented the most complete clinical picture of the disease.

Jejunal Ulcer.

Mr. H. J. PATERSON read a paper on jejunal and gastro-jejunal ulcer following gastro-enterostomy, which appears at page 1231 of this issue. Dr. CHARLES BOLTON said that gastric ulcer was caused either by some "devitalizing" poison or by a poison introduced from without, such as HCl. Besides the causation of ulcer, there was, however, also the question why it did not heal. From his experiments he was able to say that hyperacidity did not delay healing so long as emptying of the stomach was unimpaired. Acute ulcers in guinea-pigs healed in three weeks, but if the exit of the gastric contents were delayed artificially, ulcers might persist for at least seven weeks. Whilst it required a strength of 0.7 per cent. HCl to produce ulceration in the stomach, it was quite possible that a 0.3 per cent. solution would be efficient in the jejunum, which was accustomed to an alkaline contents. Mr. W. G. SPENCER said that if hyperacidity were really the bugbear Mr. Paterson suggested, it would negative the operation altogether. He thought jejunal ulcers were less common now that the no-loop operation was done. In his experience of the anterior operation, which was said by Robson and Moynihan to be followed frequently by jejunal ulcer, there had been no such occurrence; most of his cases were done for cancer, and such of them as he had had an opportunity of seeing *post mortem* did not show any signs of ulceration at the site of junction. He thought primary union of the mucous membrane was obtained. Mr. JONATHAN HUTCHINSON thought that jejunostomy, which apparently had been done in some of the cases tabulated, was very inadvisable as a deliberate procedure. It had been suggested, too, to divert the bile and pancreatic juice into the stomach as a rational means of overcoming hyperacidity, but the danger of persistent vomiting appeared to him an insuperable objection. Mr. PATERSON, in reply, stated that the operation was only intended as a last resort in relapsing cases. It seemed to him that Moynihan's case of ruptured duodenum had established the feasibility of the procedure without the promotion of vomiting.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.—At a meeting on May 7th, Dr. WALKER DOWNIE, President, in the chair, Dr. W. R. JACK read notes of a case of *Tuberculosis of the*

bladder treated by vaccine therapy. The patient was a young woman aged 32, a teacher by occupation. Frequency of micturition with scalding pain dated back four years. It came on acutely, and passed off after varying intervals. In May, 1908, the urine was acid, specific gravity 1020, and contained albumen and pus. Tubercle bacilli were readily detected in the sediment. On cystoscopic examination, tuberculous ulceration was found in the trigone of the bladder and in the neighbourhood of both ureters. Dr. J. H. Nicoll removed the right kidney, the pelvis of which was found to contain a uric acid calculus coated with phosphates. Scattered tubercles were found through the cortex. The right ureter was swollen and gelatinous. Convalescence was uninterrupted. The attacks of pain recurred, and in January, 1909, cystoscopic examination proved the ureteral orifices to be normal, but adjacent to the right orifice were one or two small white tubercles and two flat, yellowish ulcerated surfaces, with rounded margins and evidently tuberculous. Her index to the tubercle bacillus was 0.68. On January 22nd 0.0006 mg. of Koch's bacillary emulsion was injected. A few hours of meatal and hypogastric pain followed, and the index fell to 0.60, but rose steadily to 0.88 on the 24th, and 1.08 on the 28th, and 1.10 on the 31st. Frequency greatly diminished and pain disappeared. On February 2nd 0.0001 mg. was injected. The index did not rise beyond 1.06. After the injection of 0.00012 on February 14th, the index fell to 0.81 and rose to 1.34. Some injections of a vaccine grown from a pure culture of *Bacillus coli* found in the pus were also given and effected a marked diminution in the quantity of pus. Examination at this stage failed to discover tubercle bacilli in the urine and the symptoms steadily improved. Dr. WALKER DOWNIE reported (1) a case of *Epithelioma of the naso-pharynx* treated by radium. The symptoms were severe frontal headache and inability to breathe through the nose. Both nares were found filled with pus. The naso-pharynx was almost completely filled with a new growth, a piece of which was removed and was found to be a cellular epithelioma. Operation was refused and radium was tried. A small quantity of bromide of radium was passed into the naso-pharynx through the inferior meatus. It was at first left in for fifteen minutes, but later was left in for an hour each day. After a week he could draw air through the nose, and headache was less severe. After six weeks of this treatment the tumour had entirely disappeared. He returned again, however, with symptoms of intracranial tumour, from which he died. (2) Three cases of primary epithelioma of the uvula. Each tumour was removed with scissors, cutting away a considerable piece of the soft palate round the tumour. One case died ten years after of a malignant tumour in the right posterior triangle of the neck. There was no recurrence in the throat. The second case returned four years after with a scirrhous cancer of the left tonsil with involvement of the cervical glands, which, with the tonsil, were removed. Dr. A. A. GRAY showed stereograms illustrating normal and pathological conditions in the middle and inner ear. Dr. WYLLIE NICOL showed a new form of test tube. The opening was at an angle of about 45° to the length of the tube for the purpose of facilitating dropping in fluids, as strong nitric acid, from a bottle.

UNITED SERVICES MEDICAL SOCIETY.—At a meeting on April 14th, Colonel D. WARDROP, A.M.S., in the chair, Surgeon KENELM DIGBY BELL, R.N., in a paper on physical training and the medical profession, deprecated the current fashion of men specializing in one form of sport. What was wanted was all-round training. If we were to go to war and had to call upon our men for abnormal feats of endurance, it was all-round physique that was wanted, not the man who said he could not pull an oar but could "put the shot" further than any other man in the South of England, or any other similar case of which there were many examples to-day. It was the duty of the medical profession to ensure that some sound method of physical education was everywhere adopted. Its object should be to increase the strength, agility, and power of endurance of boys and men. By "strength" was meant not large muscular development, as is so commonly understood, but an even balance of work between every organ and function of the body, striving to produce an all-round man. The lines of the Swedish system of gymnastics should be followed. It secured all-round development of every organ and function of the body. No exercise is applied for developing, the muscular qualities aimed at being suppleness, co-ordination, smart reaction, and agility. This method had obtained a sure footing in England, as elsewhere, but was not receiving all the attention it deserved—partly owing, no doubt, to the freedom with which so-called professional experts were allowed to practise their various methods of physical culture and to advertise these methods as treatment for the cure of all sorts of diseases, so the mention of physical training had come to have an echo of charlatinism attached to it. The failure of the medical profession to show interest in the subject was also in a measure responsible for the same result. The subject was of immense importance, and should be studied by all medical men.

Reviews.

CRIMINAL RESPONSIBILITY.

DR. OPPENHEIMER, in the preface to his book on *The Criminal Responsibility of Lunatics*,[1] begins by alluding to the feud between medical men and lawyers on questions concerning the criminal liability of lunatics, and affirms that "almost all the writers who have approached the investigation in a conciliatory spirit have sought success by forsaking the claims of their own professional brethren and blindly recognizing the opponents' claims." There is a good deal of truth in this, and we therefore welcome the work of one who is both a medical man and a lawyer, and one in whom also a very extensive knowledge of comparative jurisprudence is combined with eminent analytical acumen. The work differs from many others published in this country, and gains added value by the fact that it is based upon a study of the articles and explanatory "motives" of the penal codes of all countries. This alone would justify its publication, but it is the author's application of these results to English law which make it interesting, if not indispensable, to English students. A remarkable fact—clearly brought out by Dr. Oppenheimer, and of which some, at any rate, of the medical men pressing for alterations in the English law may be unaware—is that in almost every country the same antagonism between law and medicine which obtains in England is to be found, and, further, that the very changes which by many here are urgently called for—for example, the competency of medical experts to deal with questions of responsibility and the exoneration by insanity *per se*—are condemned by medical opinion in those very states where these postulates have been realized in legislation. The French penal code, which identifies insanity with irresponsibility—

> Art. 64. There is neither crime nor offence if the accused was in a state of mental alienation at the time of doing the act, or if he was constrained by a force which he could not resist,

—is constantly referred to by the author, and furnishes an interesting example of the way in which an apparently rigid and logical rule can be so stretched as to subvert entirely the ends of justice. By this confusion of insanity and irresponsibility the French law delegates judicial functions to the medical expert, and the reports of the physician usually include with the results of medical diagnosis an opinion as to the responsibility of the accused and a statement as to necessary defensive measures. The question of responsibility is not a medical concept and is not to be found in the French code, and the introduction of this criterion of responsibility and, by implication, of freedom of the will has been brought about, Dr. Oppenheimer says, by a recognition of the fact that the text of Art. 64, if taken in its natural sense, would lead to appalling results.

"Thus the French law, starting with the principle of the absolute irresponsibility of the insane, arrives, by means of

[1] *The Criminal Responsibility of Lunatics.* A Study in Comparative Law. By Heinrich Oppenheimer, M.D.Heidelb., M.R.C.P.Lond., LL.D.Lond., Barrister-at-Law, etc. London: Sweet and Maxwell. 1909. (Demy 8vo, pp. 283. 10s. 6d.)

judicial interpretation in practice, at the same results as flow directly from the text of Par. 51 of the German code," according to which "there is no punishable act if, at the time of doing it, the actor was in a state of unconsciousness or of morbid disturbance of the mental faculties which excluded the free determination of his will."

Curiously enough, Dr. Oppenheimer says, the free-will test is looked upon in Germany with the deepest distrust.

Thus we arrive at the strange result that, whilst in France interpretation has introduced the will test of which the text of Art. 64 knows nothing, in Germany interpretation has in the case of mental disease eliminated it, though the letter of Par. 51 prescribes it in so many words.

Nevertheless, Dr. Oppenheimer "emphatically concurs in the opinion that freedom of the will is a fundamental postulate of all existing systems of penal law and the only possible justification for the infliction of punishment *stricto sensu*," and dismisses rather summarily the views of the positive school who would once and for all give up the notion, even the very word, of "responsibility," including those, we take it, who would ask instead, Is the accused a danger to society, and if so, how dangerous?

Accepting English law on this point as it is and not as it ought to be, Dr. Oppenheimer's discussion and analyses are admirably clear and thorough. It may not, however, be out of place to draw attention to two statements, made in different chapters but relating to the same phenomenon, on which the author may yet alter his views. The first statement refers to those cases in which, though, according to Dr. Maudsley "there have not been any previous symptoms to indicate disease, it is still possible that the crime may mark the period when an insane tendency has passed into actual insanity—when the weak organ has given way under the strain put upon it." Concerning this Dr. Oppenheimer says:

The commission of a crime by a person who has never been suspected to be insane by his friends or relations, may certainly be the occasion which first attracts attention to his mental condition and causes him to be, for the first time, subjected to medical examination; but the alienist will discover independent signs of undoubted lunacy, apart from the criminal act, and that which strikes him as peculiar in the act itself will not be the only material for him to work upon; it will in his hands be merely an index to the discovery of those morbid phenomena which enable him to diagnose an ordinary mania, melancholia, delusional, epileptic, hysterical insanity. But he will not then speak of "mania transitoria."

The second statement occurs in a chapter headed "The Critical Moment."

Considering that insanity generally runs a very protracted course, and that even most of what are called acute attacks last weeks and months, we are, in the absence of cogent proof to the contrary, not merely entitled, but forced to draw the inference that a prisoner shown to have been deprived, by mental disease, of the faculty of discerning between right and wrong on the 1st of March, was probably in the same state of blissful ignorance on the 1st of February, and on that day dedicated to him and to all his fellow-fools.

Briefly and in no contentious spirit it may be said that a little practical experience of criminal lunatics would convince the author of the error of his views on this matter, and that an acute episodic psychosis may occur, in which murder may be perpetrated, on February 1st; the prisoner may convince the experts of his sanity on March 1st, and the true—that is, in all human probability the true—state of affairs only be revealed by subsequent developments, it may be many months later. For this reason, we note with approval that Dr. Oppenheimer endorses the German criminal procedure by which an extended period of mental observation in a lunatic asylum of accused persons suspected of insanity is provided. Also the author's attack on the doctrine of partial insanity and his plea for the formation of a permanent professional body of medical experts attached to courts in an official capacity, analogous to the *Gerichtsaerzte* in Germany, will probably meet with general acceptance. Dr. Oppenheimer's work is a valuable contribution to the literature of a most important subject, and will repay careful study.

RENAL DISEASE.

THE volume on diseases of the kidney in Brouardel and Gilbert's system of medicine has been written by E. JEANSELME, A. CHAUFFARD, P. E. WEIL, and L. LAEDERICH,[2] of whom the first two deal with the examination of the urine and the last two with diseases of the kidneys. It seems to be a mistake to say (p. 59), as is said in the chapter on albuminuria, that mucin is coagulated by heat, nor is it altogether satisfactory that Bouchard's views on retractile albuminuria, should be given without a warning that the opinion of the eminent professor is no longer accepted by urologists. There is a want of detail in the description of the reactions given by the various protein substances called albumose, as Bence Jones's albumen (hetero-albumose), for example, reacts differently to ordinary deutero-albumose. The statements respecting benign albuminuria are not clear, and there is no reference to the benignity of albuminuria in boys when unaccompanied by other indications of renal disease. It seems strange to see any doubt cast on the presence of sugar in normal urine although the quantity is too small to be detected by the ordinary methods of examination. Under the description of the acetone bodies it is surprising to be told that the ferric chloride reaction has been abandoned because of the fallacy which arises in people who are taking salicylates and allied drugs; such a fallacy is easily eliminated, and we should have supposed the ferric chloride to be the most usual and at the same time the most useful ordinary test. None of the methods proposed for detecting acetone are approved by the authors, but they omit the method generally favoured in this country of adding a few drops of solution of nitro-prusside of sodium, and following this by excess of strong solution of ammonia. Although the presence of acetone in the urine of starvation is mentioned, nothing is said of the influence of meat diet in producing it. The description of the examination of urine by the use of a separator and catheterization of the ureters does not include the injection of indigo-carmine, which is generally recommended as the best of the colour methods, while in connexion with the influence of diseases of the pancreas on the urine there is no reference to Cammidge's reaction. On the whole, however, the account given of the examination of the urine is clear, and is illustrated by excellent figures printed in the text The description of diseases of the kidneys occupies the greater part of the book, and is admirably done, but we observe with surprise that there is no separate description of puerperal nephritis or of those cases dependent upon diseases of the pelvic organs; nephritis thus produced differs greatly in its results from others due to the action of constitutional poisons; retinal disease, for example, is rightly spoken of as of grave significance; but in puerperal nephritis it is not, and this exception from the rule should have been given. The attitude of the writers respecting waxy kidney is unsatisfactory, for it ought to be generally known that the description given by Grainger Stuart was based on a misreading of pathological facts; his waxy kidneys were cases of chronic Bright's disease in its various forms complicated by the presence of waxy degeneration. Where waxy disease affects the kidney in common with the liver, spleen, and other organs, there may be no albumen in the urine; it is therefore only as a complication that waxy degeneration appears in the category of Bright's disease. The danger suggested (p. 430) of drinking more water than the kidney can eliminate seems somewhat fanciful, as excess of fluid is easily got rid of; and so long as it does not contain irritating or poisonous constituents it is improbable that the kidney could be damaged. With regard to dropped kidney, the view taken by the authors is that nephropexy is seldom needed, as general experience has proved the unsatisfactory results of surgical interference in local neurasthenic troubles; but that when the attacks of pain are severe and are not relieved by wearing a belt, when there is intermittent hydronephrosis, or where the nervous symptoms are clearly dependent upon the kidney lesion, the performance of the operation may be expected to be followed by good results.

[2] *Nouveau Traité de Médecine et de Thérapeutique.* Publié sous la direction de MM. Gilbert et Thoinot. xxi. *Maladies des Reins.* Par E. Jeanselme, A. Chauffard, P. Emile Weil, et L. Laederich. Paris: J. B. Baillière et fils. 1909. (Roy. 8vo, pp. 462. Fig. 76. Fr. 9.)

URINARY SURGERY.

THE book by Drs. WATSON and CUNNINGHAM on the surgery of the urinary tract[3] may be divided, for the purpose of review, into three parts: the sections on the

[3] *Diseases and Surgery of the Genito-urinary System.* By F. I. Watson, M.D., and J. H. Cunningham, jun., M.D. Two vols. London: Henry Kimpton; Glasgow: Alexander Stenhouse. (Imp. 8vo, pp. 627 and 474 engravings 454, 47 coloured plates. £3 3s.)

anatomy of the various parts, those on general surgery and those on the technique of operations. The first of these is not well done. To begin with, it is not accurate; secondly, the same structure is often given a different name in the text and in the picture illustrating it; apart from these defects, such descriptions are out of place in a book of this sort. The anatomical details are dealt with superficially and in less detail than can be found in any textbook. Any one setting out to read such a book, which professes to be an advanced treatise on urinary surgery, knows all the anatomy that it contains, and the descriptions should either be left out altogether or written in such detail that the reader can learn something new, and not have to wade through page after page of elementary work. But if this first section be bad, the second two are good. That on general surgery is an excellent discussion on the urinary tract in all its bearings, while the part on technique gives the operations in a way which does not make easy armchair reading, but which is excellent for following out in the operating theatre or on the cadaver. At the end of the description of each disease is a series of illustrative cases, the majority being interesting and valuable; some, however, seem redundant, notably the lengthy description of a case of congenital occlusion of the urethra in a fetus, which has no practical bearing on the surgery of the part. Many of the coloured plates, too, are unnecessary; they are indeed beautifully executed, but have no very great value from the instructional point of view, and are no doubt a potent factor in making the price of the book so much. We do not mean to say that, as it stands, the authors and publishers are asking an excessive price in proportion to the cost of production, but the number of medical men who can afford to pay three guineas for a book on one single branch of surgery is not very large. Yet we must not quarrel with Dr. Watson on this point, as he tells us in his preface that one of his chief aims has been to produce a book with "as complete and artistic an illustration for the work as the author could secure." To sum up, then, this is an excellent work, showing a close practical knowledge of the subject and much painstaking labour. But we should like it better if, by leaving out all the anatomical descriptions and the coloured plates, it could be presented to us at a considerably cheaper rate.

A book to be a good one must fulfil its purpose as well as be correct and well written. Dr. CABOT, of New York, in his book on *Disorders of the Bladder*,[4] aims at writing for the general practitioner. There is nothing actually wrong in the book, but we do not think it will fulfil the purpose with which it was written. The first chapter is an antivenereal essay written for the public at large, the second is on anatomy, and tells just so much about the anatomy of the urinary organs as would be remembered by a man who had just scraped through the easiest anatomical examination on record, even if he lived to 80 years of age. The third is on "urinalysis," and tells nothing that is not better told in any textbook of medicine that the practitioner may have on his shelves. Three chapters describe cystoscopy, the first of which is little more than an instrument maker's catalogue. Three short chapters describe the causes of cystitis, and the last describes "senile prostatic hypertrophy." The best chapter is that on contraindications to cystoscopy.

The lectures on the methods of investigation and the diseases of the urinary organs in both sexes, by Dr. L. BURKHARDT and Dr. O. POLANO of Würzburg,[5] are admirably clear and magnificently illustrated. Being intended for students, they are necessarily somewhat elementary, but are quite up to date in the description of the methods of examination and also in the accounts of the various diseases, but in certain parts, as, for example, in the examination of the urine, the attempt to deal with too large a subject in a single lecture is hardly satisfactory. The lecture on stricture of the urethra is a good example of the authors at their best; they say very justly that as the symptoms are so dependent upon the complications, no two cases are alike; that traumatic strictures develop in, at most, weeks or months after the event, rarely longer, but the injury need not have been severe or attended by any external wound. Asthma is mentioned as an occasional result of stricture, the connexion being shown by its disappearance when the urethral condition is cured. In certain cases they speak favourably of the results of excision; they have no personal experience of electrolysis, and though they mention fibrolysin, they express no opinion as to its value. In early prostatic hypertrophy the importance of warm clothing is urged, and the operation of suprapubic prostatectomy is spoken of favourably, but not as favourably as it deserves; Bottini's excision by galvano-cautery, vasectomy, and other obsolete operations being described in terms of almost equal praise. The description of cystoscopy is good, and is illustrated by life-like coloured plates. The authors do not seem very much impressed with the value of radiography in the diagnosis of urinary diseases. All the modern methods for investigating the functions of the two kidneys by separating the secretions by catheterization of the ureters, the use of separators and the use of indigo-carmine, methylene blue, and phloridzin are given fully. They describe cryoscopy and point out its fallacies, and refer to the examination of the electrical resistance of the urine by Kohlrausch's apparatus, which, though it seems to have been little used, is said to require very little urine, and to be quickly performed. Albarran's method of determining the physiological capacity of each kidney by the estimation of the various urinary excreta, especially urea and sodium chloride, the patient being put on a definite diet, is truly called a lengthy business for both doctor and patient. Movable kidney is said to be present in from 85 to 90 per cent. (!) of the female sex, and is attributed to repeated pregnancies, carrying heavy loads, too vigorous massage in the lumbar region, falls, injuries, and especially to predisposition from the so-called "enteroptotic habitus." They regard it as in itself a harmless lesion which may exist without causing symptoms. With respect to Edebohls's operations for nephritis, they confess that German surgeons have not been able to obtain results as brilliant as those described in America. The last chapter contains clear and well-illustrated descriptions of certain typical operations, and a number of useful prescriptions are printed in an appendix.

The second edition of the American translation of Professor CASPER'S excellent and well-known *Textbook of Genito-urinary Diseases*[6] has been revised and partly rearranged by Dr. BONNEY, who has also made further additions to the text and to the number of illustrations. The section on the treatment of hypertrophy of the prostate has been revised by Professor Casper himself, who is of opinion that when catheterization fails, and when a major operation is not contraindicated, the choice of procedure lies between the Bottini operation and suprapubic prostatectomy. Bottini's operation, however, in Casper's experience, as a rule, is only palliative, and suprapubic prostatectomy offers the best chance for complete cure, though the relatively high mortality militates against its universal employment. That this combination of German and American views and methods concerning genito-urinary surgery has met with favour is evident, for it is barely two years since the first edition was reviewed in these columns.

DISEASES OF THE BREAST.

Diseases of the Breast, by W. L. RODMAN,[7] is a work by one who has for many years been known to take a keen interest in this department of surgery, and has had no small share in its development. It is a readable book containing definite views clearly expressed, and shows a catholic acquaintance with the actual practice of surgeons in many quarters as well as with their writings. In a

[4] *Clinical Diagnosis and Treatment of Disorders of the Bladder, with Technique of Cystoscopy.* By Follen Cabot, M.D. New York: E. B. Treat and Co. 1909. (Demy 8vo, 225 pp., 41 illustrations, 1 coloured plate. 2 dols.)

[5] *Die Untersuchungsmethoden und Erkrankungen der männlichen und weiblichen Harnorgane für Aerzte und Studierende.* In xvii Vorlesungen. Von Dr. L. Burkhardt und Dr. O. Polano. Wiesbaden: J. F. Bergmann; and Glasgow: F. Bauermeister. 1908. (Demy 4to, pp. 381; figs. 105; Tafeln iii. 10s.)

[6] *A Textbook of Genito-urinary Diseases, including Functional Sexual Disorders in Man.* By Dr. Leopold Casper, Professor in the University of Berlin. Translated and edited with additions by Charles W. Bonney, B.L., M.D. Second edition. London: Rebman Limited. 1909. (Royal 8vo, pp. 645. Ill. 230. 24 plates. 21s.)

[7] *Diseases of the Breast, with special reference to Cancer.* By William L. Rodman, M.D., LL.D. London: S. Appleton. 1908. (Roy. 8vo, pp. 398, 111 illustrations. 16s.)

monograph one looks for a full discussion of unsettled problems, a requirement which Dr. Rodman's book fulfils. In the earlier chapters the most interesting and uncertain question discussed is the true significance of the changes usually described as chronic mastitis; Dr. Rodman believes chronic diffuse mastitis with cyst formation and general cystic disease to be one and the same disease, and that an important influence in causation is to be ascribed to interruptions in pregnancy with the consequent sudden arrest of evolutionary changes in the breast. This is a suggestion of importance, and the whole question is in want of further clinical and pathological investigation. In regard to the simple growths Warren's classification is adopted, probably the most satisfactory from the morbid anatomy point of view. The only criticism it seems worth while to make is to express a doubt as to the propriety of describing some of the fibro-adenomata as intracanalicular and others as pericanalicular, with an implied difference in site and tissue of origin, a difference which, in our opinion, cannot be supported.

In regard to carcinoma, the author does well to emphasize the distinct features, both histological and clinical, of adeno-carcinoma. One would have liked to find a more emphatic insistence on the fact that chronic mastitis and papillary cystadenoma are conditions liable to cancerous transformation, and distinctly dangerous for that reason. The theory of visceral dissemination by lymphatic permeation, as put forward by Handley, is not accepted as a whole, and in this matter the author will receive the support of many of those who have worked at the subject. In Handley's work, which is in a sense a restatement of long-accepted observations, the permeation theory is carried to its extreme. The merit of the work is not the discovery of permeation as a new principle, as some writers appear to believe; this principle of extension was discovered almost as soon as the morbid anatomy of cancer began to be studied; its merit lies in pointing out new directions of permeation, and demonstrating how widespread the process may be at early stages. Attempts to make the process cover all thoracic and abdominal metastases fail. Dr. Rodman's discussion of diagnosis is very helpful; in doubtful cases he favours the method of immediate microscopy; he does not appear to attach so much importance to the demonstration of adhesions in the case of doubtful tumours as some other surgeons. His views as to the prognosis of operation are expressed in the following terms: "Surgery should cure one-half of all cases, provided that they can be subjected to the complete operation early in the course of the disease." The illustrations of the operation for carcinoma are very good, as are also the coloured plates throughout the book. It is altogether an excellent work, and deserves a wide popularity.

PLASTIC SURGERY.

ON the Foundation Day of the Emperor William Academy of Military Education in Berlin, Professor HILDEBRAND delivered an address in which he reviewed the history of plastic surgery from the earliest times, its present state, and the prospects of its future development.[8] The earliest work in which the subject is treated of is that of Celsus, who gave clear directions for the repair of defects of the lips, nose, and ears by sliding skin flaps without twisting. From the time of Celsus until the artistic renaissance, there is no record of any advance. Perhaps, as Professor Hildebrand suggests, the newly awakened sense of beauty then caused a demand for the restoration of unsighly defects. However this may be, the first attempts were those of Tagliacozza to restore the nose. The nose has always been considered an important organ, as readers of Sterne will remember. Its loss was thought so much of that the canonists allowed it as a good reason for nullifying a betrothal. To Dieffenbach the credit is due of treating the subject in a scientific spirit, by which alone he said could surgery hope to progress. His results were noteworthy in his own day, but he prophesied greater progress in the future. This progress has been rendered possible by the work of Lister, not only in the treatment of surgical wounds, but also in the experimental work to which plastic surgery owes so much. The object of a plastic operation should be, not to transplant a substance that will remain as a mere foreign body, but one that will be capable of growth and development in its new surroundings. In respect to this possibility, the tissues differ greatly. The wonderful technical skill of experimenters such as Carrel, of New York, has proved that whole organs, such as the kidney, and even a whole limb, may be transplanted and remain permanently effective. Striking as these results are, the difficulty of obtaining healthy human organs must render their practical value small.

[8] *Die Entwicklung der plastischen Chirurgie.* Festrede gehalten am Stiftungstage der Kaiser Wilhelms-Akademie für das Militärärztliche Bildungswesen, December 2nd, 1908. Von Otto Hildebrand. Berlin: August Hirschwald. 1908. (Med. 8vo, pp. 36. M. 0.80.)

BACTERIOLOGY.

DR. BOLDUAN'S translation of Professor DIEUDONNÉ'S useful and highly practical treatise on *Bacterial Food Poisoning*[9] is well worth reading. In addition to a full account of the various types of meat poisoning and the bacteriological identification of the organisms to which it may be attributable, the book contains instructive chapters on poisoning through fish and molluscs, cheese, ice cream, potatoes, and canned goods. The translator has incorporated some additional records of outbreaks of food poisoning, and has also supplemented the author's statements regarding prophylaxis and treatment. The book raises a minor question which is rather perplexing. How can an animal be slaughtered after it is dead? On p. 18 reference is made to a calf "which had been slaughtered either after death or while moribund."

Dr. MINETT'S small and very condensed laboratory guide to the *Differential Diagnosis of Bacteria*[10] is a useful collection of memoranda, but seems to have been put together rather hastily. The first twenty-nine pages deal with the identification of bacteria and make constant references to various staining methods. One naturally expects that the descriptions of these methods should come first. On p. 2 we are told that they are described in the appendix, but we find that the appendix begins on p. 42, that the staining methods are described not in that section but on pp. 30 to 41. Throughout the book we think that the desire for condensation had been carried too far. The author seems to be in a hurry; his book contains valuable advice, but it needs a little expansion in order to become palatable to the average student.

DESIGN IN NATURE.

IN the compass of three large volumes entitled *Design in Nature* the late Professor J. BELL PETTIGREW has embodied a long series of beautifully-illustrated essays on anatomical and physiological problems.[11] Much of the text is entirely new, but it includes the main parts of the author's numerous descriptive, explanatory, and polemic contributions in which he has dealt with various phases of development and function and with many complicated details of animal structure. Dr. Pettigrew's object in publishing his observations and opinions regarding the various forms assumed by matter, the means adopted to produce locomotion, the numerous modifications of reproductive, respiratory, and circulatory organs, and the theories of development which have exercised so many great minds, was to show that "the resemblances of the embryos of higher forms to the adults of lower allied forms afford no proof that the higher forms are manufactured from the lower," and to advocate "the doctrine that like produces like in endless sequence, and that each begets only its own kind." It is probable that many readers will not be convinced by the arguments, but they will gain much pleasure from the delightful treatment of the subject, and they will admire the energy and ability of the author.

[9] *Bacterial Food Poisoning.* By Professor Dr. A. Dieudonné. Translated by Charles F. Bolduan, M.D. New York: E. B. Treat and Co. 1909. (Demy 8vo, pp. 128. 1 dol.)

[10] *Differential Diagnosis of Bacteria and Practical Bacteriology.* By E. P. Minett, M.D., D.P.H. London: Baillière, Tindall and Cox. 1909. (Cr. 8vo, pp. 80, 1 illustration. 2s. 6d.)

[11] *Design in Nature.* By J. Bell Pettigrew. In three volumes. London: Longmans, Green and Co. 1908. (Roy. 4to, pp. 1470 602 figures, 181 plates. 6?s.)

NOTES ON BOOKS.

PROFESSOR H. G. GREENISH'S *Textbook of Materia Medica*[1] is the second edition of his *Introduction to the Study of Materia Medica*, and the change of title is fully warranted by the extended scope of the work. The history and commerce of drugs are now described in a preliminary chapter illustrated by a number of photographs of original packages of many drugs as they reach this country, and the manner in which they are dealt with at the docks and drug sale-rooms. In the main part of the book, all the drugs in ordinary use are described; many illustrations accompany the text, but these are in most cases not intended to relieve the student of the necessity of handling and studying the drug itself, but to direct attention to some particular feature or to render more explicit the information given. Some use of the microscope in the study of drugs is contemplated, and many microscopic peculiarities are noted. Drugs are classed according to their nature as roots, leaves, gums, etc., and a tabular classification according to natural orders is also given.

The continued publication of pocket "Aids" to students would seem to indicate that such works are appreciated by those for whom they are compiled. In Dr. BERNARD HUDSON'S *Aids to Medicine*[2] we have a condensed account of all the diseases to which the internal organs are liable within the compass of 240 small pages! The author has carried out the instructions of the publishers, and only claims to aid the student in the revision of his knowledge. He has summarized the very latest work, however, and some of it may meet the reader's eye for the first time in this compressed form. Aid is usually sought only when difficulties arise, and it would seem hardly necessary to fill up the pages of a pocket reference book with the axioms of medicine when so many of the problems are awaiting solution. Condensed information should be accurate; but even in the more familiar accounts there have crept in certain inaccuracies which might well have been avoided.

The first volume of the nineteenth series of *International Clinics*[3] for 1909 is an exceptionally interesting number. The first article, on the hospital for advanced cases of tuberculosis, by Dr. Lawrence F. Flick, is suggestive; its keynote is in the opening sentence, "The hospital for advanced cases of tuberculosis and for early cases in the acute stage of the disease is our most valuable asset in the crusade against tuberculosis. . . . It strikes at the root of the disease by bringing contagion under control when it is most intense." The theme developed in the paper will surely become a pressing issue in this country as well as in America. Among the other interesting papers are those on occupation and so-called rheumatic pains, by Dr. J. J. Walsh; on Mikulicz's disease and allied conditions, by Dr. C. P. Howard; on acute tuberculous rheumatism, by Professor A. Poncet and Dr. Lericke; on typho-bacillosis, by Professor Landouzy; on sporotrichosis, by Drs. Duval and Vinard; and one on absorption from the peritoneal cavity, by Professor W. J. MacCallum, of the Johns Hopkins University. Besides these and other lectures, the volume contains a valuable review of the progress of medicine during 1908, dealing respectively with treatment, medicine, and surgery.

Mr. E. G. CLAYTON'S *Compendium of Food-Microscopy*[4] is stated in the preface to be principally a revised issue of the microscopical portion of the works of Dr. Arthur Hill Hassall, together with additional matter and illustrations by Mr. E. G. Clayton himself. The preface and the opening "Summary of Dr. Hassall's Life-Work" show clearly the strong veneration felt by the writer for the original author of the work which is here reproduced; but if the end in view was to produce a book of as much value in food analysis to-day as Dr. Hassall's book was when it appeared thirty-two years ago, a more critical spirit might have been shown, and some of the older matter could well have been sacrificed and recent knowledge more adequately given. Thus five pages are devoted to descriptions and illustrations of various adulterants of tea, their importance being qualified by such remarks as "it is doubtful whether lie-tea now finds its way into the English market," and "it is extremely unlikely that such articles as these in this country are anywhere obtainable at the present time. They are described here as curiosities of the past," while in the descriptions and illustrations of tea itself no reference is made to the large stone cells or idioblasts which form one of the most characteristic elements of the leaf. In a "compendium," too, a more complete list of materials might fairly be expected than is here given; thus, the Nat. Ord., Umbelliferae, is represented only by cummin, which is principally used in veterinary medicine, while caraways, which are largely used in foods, are omitted, and yet room is found for ipecacuanha, scammony, and other drugs. For the most part the illustrations, which are mainly of microscopic preparations, are excellent, and show clearly the salient features; and as there are some 280 pictures, the book cannot fail to be useful, in spite of its obvious faults and limitations.

The seventh edition of *Southall's Materia Medica*[5] has been revised and brought up to date by Mr. E. W. MANN. The book, as the preface states, is a compilation, but the work has been well done, and, as is to be expected in a seventh edition, hardly any errors are to be found. It is intended as a companion to practical study of the drugs themselves, and hence contains no illustrations; judicious use is made of different kinds of type in distinguishing between official and unofficial substances, and between the essential and the less important parts of each subject. The list of drugs dealt with is very comprehensive.

[1] *A Textbook of Materia Medica.* By Henry G. Greenish, F.I.C., F.L.S. Second edition. London: J. and A. Churchill. 1909. (Med. 8vo, pp. 640; 269 illustrations.)

[2] *Aids to Medicine.* By Bernard Hudson, M.D., M.R.C.P., Assistant Physician to the City Road Chest Hospital. London: Baillière, Tindall and Cox. 1909. (Fcap. 8vo, pp. 260; 5 illustrations. 3s.)

[3] *International Clinics.* Edited by W. T. Longcope, M.D. Vol. i. Nineteenth series, 1909. Philadelphia and London: J. B. Lippincott Company. 1909. (Roy. 8vo, pp. 316. £1 15s. four volumes.)

[4] *A Compendium of Food-Microscopy.* By E. G. Clayton. London: Baillière, Tindall and Cox. 1909. (Demy 8vo, pp. 471, 282 illustrations. 10s. 6d.)

[5] *Southall's Organic Materia Medica.* By John Barclay, B.Sc.Lond., F.C.S. Seventh edition. Revised and enlarged by E. W. Mann. London: J. and A. Churchill. 1909. (Demy 8vo, pp. 376.)

MEDICINAL AND DIETETIC PREPARATIONS.

Digalen.

THE partial supersession of digitalis by its active principle, such as has occurred with several other powerful drugs, has been hindered by the absence of certain knowledge with regard to what this is. It is now generally agreed that of the many substances obtainable from digitalis leaves, digitoxin is the most powerful and reliable, and represents in its therapeutical action the entire drug; but its insolubility makes it unsuitable for hypodermic injection, and much reduces the convenience of administering it by the mouth. Some time ago Dr. M. Cloetta claimed to have prepared from digitalis an amorphous digitoxin, possessing the same elementary composition as the crystalline, but being much more soluble. A solution of this amorphous digitoxin is now being supplied under the name "Digalen" by Messrs. F. Hoffmann-La Roche and Co., Basle; it is stated to possess the full therapeutic properties of digitalis, and to be suitable for administration by the mouth or by enema, as well as by hypodermic or intravenous injection. A sample which was submitted was a clear colourless liquid, containing both glycerine and alcohol, and freely miscible with water. It gave the colour reactions for digitoxin as well as could be expected in the presence of large excess of glycerine.

NATIONAL ASSOCIATION FOR THE FEEBLE-MINDED.

THE annual meeting of this association was held at the Mansion House on May 13th under the presidency of the LORD MAYOR.

Dr. SAVAGE, in an opening address, emphasized the national importance of the question in view of the alarming increase of the feeble-minded class, which had been estimated as numbering, in England and Wales alone, about 140,000, of whom some 66,000 urgently needed special provision. Inasmuch as heredity was the preponderant factor in causation, and "prevention was better than cure" (which, indeed, was impracticable), the only remedy seemed to lie in the adoption of measures for the early detection of the unfit and the prevention of their propagation.

Mr. MONTAGUE CRACKENTHORPE, K.C., pointed out that, both from the humane and the economic aspects, it behoved society to protect itself from the criminal tendencies into which the uncared for feeble-minded so often drifted. An industrial farm colony, such as was

contemplated by the association, would meet a great social want.

Mr. W. H. DICKINSON, M.P., referred to the circumstances leading to the appointment of the Royal Commission, of which he was himself a member, and to its findings and recommendations. He combated the view that the feeble-minded formed a harmless element in the community, for in that class existed a potentiality for even serious crime. At the best they were a drag upon progress; workhouses and prisons were powerless to reform them; nothing less than real industrial colonies, specially organized, would suffice. The association had raised a certain amount of money for this purpose and had a suitable property in view, but to realize this useful scheme several additional thousands were required. He moved a resolution expressing the opinion that the facts brought out by the Royal Commission proved the existence of a grave national evil urgently requiring to be remedied, and pressing upon Government the need of early legislation on the lines of the Commissioners' recommendations.

Lady FREDERICK BRUDENELL-BRUCE seconded the resolution.

Dr. A. E. TREDGOLD, speaking from experience as a medical investigator to the Royal Commission, pointed out that the problem of how fitly to deal with the increasing number of degenerates was one of vital moment to the nation, and one of which the general public had not yet grasped the importance. In England and Wales alone there were nearly 140,000 persons suffering from original mental defect (apart from the insane)—a proportion of 1 to 248 of the population; and it must be borne in mind that mental unfitness had innumerable ramifications and correlations deeply affecting social conditions. It was high time for the nation to stem the advancing tide of degeneracy, instead of dwelling simply upon the glories of the past. Unfortunately, feeble-mindedness did not tend to sterility; indeed, he had found a larger average of children in degenerate families than in others (7.3 as compared with 4.63), and unless means were speedily adopted to check the increase of the unfit, national decadence seemed inevitable. Their propagation must be prevented, and their happiness and freedom from criminality secured, by early training and permanent segregation with useful employment in an industrial colony such as it was the ambition of the National Association to establish.

In conclusion a vote of thanks, moved by Sir WILLIAM CHANCE (Chairman of Executive Committee), and seconded by Sir R. BIDDULPH MARTIN (the Treasurer of the association), was heartily accorded to the Lord Mayor.

The thirteenth annual report of the association shows that during 1908 there had been a steady expansion of its work. New centres around London and in the provinces had been organized, additional homes affiliated, and local after-care committees had been co-ordinated in their methods, and their results compared and tabulated. The honorary medical staff had been strengthened by the addition of several provincial consultants; and lectures had been given under the auspices of the Education Committee. The Colony Fund had benefited by an increase of £1,514 during the year, and altogether about £3,000 seems now available for this object. Much more, however, is needed; and donations would be gratefully acknowledged by the Secretary, Miss A. H. P. Kirby, Denison House, Vauxhall Bridge Road, S.W.

LYNN THOMAS AND SKYRME FUND.

Report by the Honorary Secretary.

THE establishment of this Fund was announced in the BRITISH MEDICAL JOURNAL and in the *Lancet* of March, 1908. A full account was then given of the reason of the Fund and the manner of its inception, and to that account the reader is referred. The amount of money required to reimburse Mr. Lynn Thomas and Dr. H. E. Skyrme was £3,197 12s. 3d. The Fund was formally closed on July 31st, 1908. Since that date a few additional subscriptions have been received, and the gross amount of the Fund, with interest, is now £1,788 11s. 6d. All the details of the subscriptions have been published, lists appearing from time to time in the BRITISH MEDICAL JOURNAL and the *Lancet*. The amounts of individual subscriptions have varied from £10 10s. to 2s. 6d.

An analysis of the subscriptions appears in the statement of accounts below; 1,663 subscriptions were received from individuals, while 29 medical societies and 14 Branches or Divisions of the British Medical Association sent subscriptions from their general funds. To the honorary secretaries of these bodies Mr. Sheen, the Honorary Secretary of the Fund, wishes to express his sincere thanks for the help they gave.

The expenses of collecting the Fund have amounted to £176 8s. 9d. A great amount of correspondence was involved, necessitating much circularizing, stamps, clerical assistance, typewriting, and printing. Also, there was some expense in preparing the "protest," which was signed by foreign surgeons. The net amount to be handed over is £1,612 2s. 9d., so that each of the two gentlemen concerned will be reimbursed to the extent of half of his expenditure.

The result cannot be regarded as otherwise than satisfactory. The medical profession is not a rich one. The enormous mass of correspondence which has come to hand shows a feeling of universal sympathy with the two gentlemen concerned and approval of the methods of treatment they employed. Many letters of sympathy have been received from those who regret their inability to contribute.

Presentation of the Fund.

The presentation of the Fund will be made at Cardiff on June 4th next by M. J. Lucas-Championnière, President of the International Surgical Society. M. Lucas-Championnière will on that day give an address to the Cardiff Medical Society on the Modern Treatment of Fractures. To this address, besides the local profession, all subscribers to the Fund will be invited. In the evening a dinner will be given, in the course of which the presentation will be made.

No more appropriate member of our profession could be chosen to make the presentation than M. Lucas-Championnière, not only because of his position as President of the International Surgical Society, but because he is the pioneer of the present rational treatment of fractures. It was the carrying out of the methods of treatment advocated and practised by M. Lucas-Championnière that helped to involve Mr. Lynn Thomas and Dr. H. E. Skyrme in litigation. The sympathy shown by M. Lucas-Championnière, and his approval of the methods employed, has been undoubted from the first, and his opinion was expressed in no uncertain terms in an article which he contributed to the BRITISH MEDICAL JOURNAL on March 28th, 1908. The visit of so distinguished a surgeon to this country is a matter for congratulation and it is hoped that members of the profession will unite in large numbers to give him a cordial welcome, and express in every way possible their appreciation of his visit. His reception in Cardiff will be of a civic character, and he will be the guest of the Lord Mayor.

LYNN THOMAS AND SKYRME FUND.

Honorary Secretary's Statement of Receipts and Expenditure.

Receipts.	£ s. d.	*Expenditure.*	£ s. d.
To 974 subscriptions received by Hon. Sec. direct	1,365 14 0	By printing and stationery	64 5 9
To 550 subscriptions received through Hon. Secs. of Branches and Divisions B.M.A. ...	166 9 0	By stamps	61 3 10
To 139 subscriptions received through Hon. Secs. of medical societies	37 12 0	By incidentals	4 5 11
To 14 subscriptions from general funds of Branches or Divisions of B.M.A. ...	65 8 0	By clerical work ...	44 2 7
To 29 subscriptions from general funds of medical societies...	113 12 6	By expenses of circulars, Western Australia Branch, B.M.A.	1 9 8
To 3 subscriptions from Hospital Staffs ...	11 19 0	By translation of "Protest"	1 1 0
To "Some Indian Sympathisers"	1 1 0		176 8 9
To interest received from bank deposit ...	26 16 0	By balance at bankers	1,612 2 9
	1,788 11 6		1,788 11 6

I have examined the above account with the Honorary Secretary's books, vouchers, etc., and certify it to be correct.

Cardiff, May 12th, 1909. R. H. March, F.C.A.

LLANDRINDOD WELLS.

A SHORT time ago the authorities of Llandrindod Wells issued invitations to the members of the staffs of leading hospitals in Great Britain and Ireland to pay a visit to this spa as the guests of the town, and so many proved able to accept that the gathering last Saturday was of quite a representative character. The proceedings included luncheon in the Albert Hall, at which the chair was taken by Dr. J. Murray, M.O.H. for the district, and Chairman of the Llandrindod Development Association. On the toast list the place of honour was given to "Our Medical Guests," this being proposed by Dr. Murray himself and answered by Dr. Sainsbury of the Royal Free Hospital, London, and Professor Magee Finny, of Dublin. The rest of the afternoon was spent in examination of the resources of the place, while on Sunday morning a special sermon was preached by the Bishop of Swansea. Later in the day expeditions were paid to places of interest, and a good many medical men were the guests of Mr. Venables Llewelyn, at Llysdinan Hall, some five miles from Llandrindod. Throughout their stay the visitors had the advantage of the ciceronage of local medical men, and in addition to Dr. Murray must feel especially indebted for their courtesy to Messrs. Kerr, Hudson, and Ackerley. There was plenty to see, as changes have taken place even in the few years that have elapsed since the last occasion on which the town was visited by any considerable number of medical men, namely, at the date of the annua meeting of the British Medical Association at Swansea.

A View on the Ithon.

Its rapid development is somewhat remarkable. Its waters have been known, of course, to possess value from very early times, and about the time when Bath was at the zenith of its glory a speculator from over the border opened a pump room and a kind of hotel at Llandrindod. Nevertheless, it is only within the last two decades that Llandrindod has made any real attempt to vie with other places of like claims. As it now stands, it is a completely equipped Kurort, but in other respects is probably as little like what the newcomer unconsciously expects to find as could be imagined. Instead of an old-fashioned town with a spa built on to it, it is practically an entirely new creation. A brand new hamlet of red brick houses, with broad, excellently paved streets, electric lighting, refuse destructors, and septic tank sewage system. Indeed, except for the fact that the houses and streets are freely interspersed with gardens and open land and scattered over the sides of half a dozen little hills, the town in point of modernity is own sister to any of the more wealthy and up-to-date suburbs in the neighbourhood of London. At first this may be rather of a shock, but it is soon realized that the town is so microscopic that one can step in a minute from the centre of advanced civilization into the wilds of Wales.

As for its claims to be regarded as a Spa of the first order, these are unquestionable. It has two distinct pump rooms and two distinct bathing establishments, both the latter being fitted with every form of bath and electrotherapeutic apparatus which modern hydrotherapeutic ingenuity has devised. These two pump rooms and bath houses lie at different levels of the town, but are within five minutes' walk of one another. Between them they are able to boast of as many as seven different springs, each providing a water of constant but materially different composition to that of its neighbour. This is a noteworthy point, for at first sight it seems strange that the waters obtained from springs in such close proximity should differ so very greatly in medicinal character. However, a little study of the geology of the district makes this fact fairly comprehensible. Back in the bygone ages some volcanic outburst has crushed the various strata of rock, and, tilting them at all angles, has allowed of waters of totally different characteristics rising from the ground practically side by side.

In general composition the springs fall under the headings of muriated saline, muriated sulphur, and chalybeate sources. The sulphuretted-hydrogen waters are of several strengths, one being an almost pure sulphur water. Two of the springs have only been discovered within the last year or two. One of these, besides some sulphuretted hydrogen, contains a radioactive body, and the other a small amount of thallium chloride and a considerable quantity of lithia. Nearly all the waters contain traces of this metal, but in this particular source the amount is relatively considerable. It seems to be as high as 0.1 per mille as compared with 0.035 per mille, that of Royat water—and Royat commonly prides itself on its wealth in lithia salts. All the waters are more or less gaseous, and all are cold.

The way in which the waters are utilized varies considerably in the practice of different medical men, but it would appear to be not uncommon to give them in combination, varying the proportions according to what are considered the special requirements of the case. In atonic dyspepsia, hepatic congestion, and the like, the alkaline muriated waters are, perhaps, usually given alone, while in gouty and rheumatic patients their use is combined with that of one or other of the sulphuretted waters. Similarly, the lithia water may be used either alone or in combination. As a whole, the morbid conditions in which their administration appears to be of the most value are those of torpid liver, chronic rheumatism, and gout. Benefit in cases of such character is easy to understand in view of the composition of the waters, but what is less explicable is that patients suffering from diabetes likewise seem to derive advantage. There seems, however, to be good evidence that this is really the case.

Apart from its waters and bathing arrangements, the spa has several material advantages. Its air is of the purest; and this is not difficult to understand, since the whole county of Radnor contains only some 40,000 souls, and the neighbouring counties also are sparsely inhabited. Its topography is also favourable. Residents describe the

town as lying on a plateau about six miles long and a mile wide, bordered by mountains of rather less than the average Welsh height. Inasmuch as the whole district lies at an elevation of some 700 or 800 ft., it may well be that the plateau idea is correct; but to new acquaintances the town and the district in which it lies seem to consist of a collection of innumerable hills and valleys. Therein lies one of the great attractions of the place. None of the ascents are forbidding in steepness, and plenty of level walking may be obtained; but the visitor is constantly tempted to explore one hillside after another, and can do so without undue fatigue.

It is, indeed, in this connexion that Llandrindod seems to have claims quite special to itself. Not only are its surroundings of the most attractive kind, but the smallness of the town makes geologizing, botanizing, fishing, and exploration of old cairns and Roman and other remains tasks of extreme ease. Nor are organized amusements lacking. Croquet lawns and tennis courts are numerous, and there are several golf links. One of them is a championship course of 18 holes winding along a hilltop at an elevation of from 1,000 to 1,200 ft., and is provided with an exceedingly comfortable club house. For those who prefer driving there are plenty of distant valleys and villages to visit, and motor cars are on hire. As for the accommodation to be found it is, like everything else in the town, of a thoroughly modern character, and the general healthiness of the district is clearly evidenced by the mortality returns. Last year the death-rate was as low as 5 per 1,000. Although about six hours from London, the journey is not unduly fatiguing, for the line throughout is excellently laid, and in the early future the London and North-Western Railway expects to be able to shorten the distance materially.

On these grounds, therefore, quite apart from its claims in connexion with ordinary spa therapeutics, the place is one to be borne in mind when cases of pure neurasthenia have to be dealt with, or when a locality has to be selected for persons who are merely a little run down, and in need of change, open air, and gentle exercise. The picture which accompanies these lines is a view in the neighbourhood, and has been selected as more truly characteristic of the locality than would be a photograph of any building.

LITERARY NOTES.

WE note that in the programme of the forthcoming meeting of the American Medical Association there is a "symposium" on syphilis. At another medical gathering in the States there is to be a "symposium" on cancer. Even if it be held that Venus and Bacchus naturally go together, surely cancer is scarcely a subject to be discussed *inter pocula*. The use of the word "symposium" to designate a scientific debate is a vulgarism due to ignorance of its meaning. Lest we be accused of pedantry, we will invoke the authority of one whose mind was far above any meticulous regard for verbal purism. In a letter (September 2nd, 1881) addressed to C. G. J. Romanes, who had suggested a conjoint article by a number of scientific men on vivisection, Charles Darwin wrote:

> Allow me to demur to your calling your conjoint article a "symposium," strictly a "drinking party." This seems to me very bad taste.

A symposium, without excess and with the soothing accompaniment of the calumet of peace, may not inappropriately follow a debate. But to call the discussion itself a "symposium" suggests the possibility of scenes like that at the memorable meeting of the "Society upon the Stanislow," in which the "scientific gents" might use bottles as weapons instead of "the remnants of a palaeozoic age." By a curious coincidence since writing this note we have come across in *Science* an account of a "symposium" on Correlation, which took place at the meeting of the American Association for the Advancement of Science. It is recorded that the Society of Vertebrate Palaeontologists held its meeting about the same time. Missiles for such a warfare as has been hinted at would not therefore have been wanting, and the more "vertebrate" the palaeontologists the more likely would they be to use chunks of old red sandstone and skulls of mammoths when the natural pugnacity that belongs to the scientific temperament was inflamed by a "symposium."

There is an interesting incident in the life of Beatrice Portinari which must appeal to all lovers of Dante, whether they believe that she was the poet's beloved lady or not. She was the daughter of a certain Folco Portinari, one of the most influential men in Florence, and three times Prior of the city; but his chief interest for us lies in the fact that he was the first Florentine who founded a hospital for the sick in his native town. In Edgcumbe Staley's *Famous Women of Florence* it is stated that Florence at that time possessed plenty of charitable institutions for the relief of the suffering poor, but there was no establishment for the sole purpose of nursing the sick. This want was supplied by Portinari, who in the year 1285 took a house in the Piazza di Santa Maria Nuova, where he endowed 17 beds for the sick poor of Florence. It was known as the "Spedale di San Matteo," and formed the nucleus of the famous "Spedale di Santa Maria Nuova," which was built at Portinari's expense three years later. The new hospital buildings were large enough to include the ancient church of Sant' Egidio. Portinari continued to take an interest in the hospital while he lived, and this interest was shared by his wife and children, who, according to tradition, loved to visit the patients and minister to their necessities. But the most devoted of all the founder's household was Tessa, the old family nurse of the Portinari. Her charity is recorded in the inscription on a bas-relief of white marble which bears her effigy and is erected in the first cloister of the hospital. The inscription dates from the seventeenth century, but the bas-relief is obviously a fourteenth century work:

> Madonna Tessa, represented in this bas-relief, was the servant of Folco Portinari, remarkable alike for her good deeds as for her fidelity: whilst she lived she employed her leisure time with merit and renown in visiting certain houses bought by her master for the care of the infirm. By the example of her noble-hearted charity, and by her kind offices to the sick, she persuaded Folco to display his pious and generous liberality in the foundation of the hospital, to-day so magnificent, the commencement of which took place on June 23rd, 1288.

Folco died soon after the completion of the hospital, and was buried in its chapel. The stone over his grave bore the following epitaph:

> Hic jacet Fulchus de Portinariis, qui fuit fondator et edificator hujus ecclesiae et ospitalis S. Mariae Nove. Decessit anno MCCLXXXIX, die XXXI Decembris. Cuius anima pro Dei misericordia requiescat in pace.

The founder did not forget the hospital in his will. He placed all ecclesiastical matters, such as appointing priests to say mass in the chapel, etc., under the Bishop of Florence for ever, and having expressed his desire to be buried in the hospital church he goes on to offer "to God, to our Lord Christ, and to the ever-blessed Virgin Mary His Mother, the said Hospital and Church, or Chapel, for the forgiveness of my sins, and for the sins of my family, and for the benefit of the infirm poor for ever. I appoint my heirs patrons-in-chief and upholders thereof." The hospital of Santa Maria Nuova still exists, a perpetual reminder of the charity of a bygone age, and the generosity of one of Florence's most noble citizens.

No reader of Dickens is likely to forget that it was on his arrival at the Golden Cross that Mr. Pickwick and his companions had their encounter with the cabman from which they were rescued by Mr. Jingle. It was at the Golden Cross, too, that David Copperfield met his old schoolfellow, Steerforth, whose interposition wrought such a change in the accommodation provided for him. A history of this classic hostelry, now the Golden Cross Hotel, has been written by Mr. Stephen E. Hutchins, who gives an interesting account of its literary and historical associations. Its existence is traced back by the author as far as 1643, for he relates that in that far-off age the sign of the inn—it was then a wayside inn at the village of Charing—was taken down by the Puritans as superstitious and idolatrous. In the golden age of coaching, coaches ran from the Golden Cross to all parts of the country, and Mr. Hutchins tells us that there is still to be seen just at the rear of the hotel, away from the roar of Charing Cross, the yard from which the coaches were accustomed to depart, with its quaint old bedroom gallery still intact. The booklet, which is illustrated with copies of old prints, will be welcomed by all lovers of old London.

STATE REGISTRATION OF NURSES.

DEPUTATION TO THE PREMIER.

ON May 13th Mr. Asquith, the Prime Minister, accompanied by Mr. Herbert Samuel, M.P., received in his room at the House of Commons a deputation organized by the Society for the State Registration of Trained Nurses.

The deputation, which was introduced by Lord AMPTHILL, comprised, among others, Mr. R. C. Munro-Ferguson, M.P., Lord Morpeth, Mr. C. D. Rose, M.P., Mr. Remnant, M.P., the Hon. Geoffrey Howard, M.P., Mr. S. H. Butcher, M.P., Mr. Ramsay MacDonald, M.P., Mr. Crooks, M.P., Dr. Rutherford, M.P., Dr. Rainy, M.P., Sir Charles MacLaren, M.P., Sir Henry Norman, M.P., Sir Luke White, M.P., Mr. Arthur Fell, M.P., Mr. Field, M.P., and Mr. D. Smeaton, M.P.

The British Medical Association was represented by Sir Victor Horsley and Dr. Smith Whitaker, Medical Secretary. Dr. Bedford Fenwick, and Sir William Macewen, of Glasgow, were also present.

The leading societies of women were represented by Mrs. Alfred Emmott, Vice-President of the National Union of Women Workers; Lady Strachey, President of the Women's Local Government Society; and Miss E. S. Kerrison, Member of the Executive Committee of the Women's Labour League.

Trained nurses were represented by Miss Isla Stewart, Matron of St. Bartholomew's Hospital; Mrs. Bedford Fenwick, President of the National Council of Nurses of the United Kingdom; Miss Huxley, late President of the Irish Nurses' Association; Miss Sidney Browne, late Matron-in-Chief, Queen Alexandra's Imperial Military Nursing Service; Miss Barton, Matron, Chelsea Infirmary; and Miss Pearse, Superintendent of the London County Council School Nurses.

Lord AMPTHILL, in introducing the deputation, handed the Premier a list of those present and the capacity in which they came. He thanked Mr. Asquith most sincerely for his kindness in receiving the deputation, and said they fully appreciated the sacrifice of time it involved, and would endeavour not to trespass upon his kindness by taking up too much time. The deputation was not an instance of mere importunity on the part of the promoters of a cause. Its members were sincerely persuaded that their request would not be unwelcome to the Prime Minister when he was asked to see the deputation. The idea had been entertained at first of presenting a memorial so as not to trespass upon his time, and a memorial had been prepared and signatures obtained for it, but it became known that a deputation might be preferable and might be a more convenient method generally; the promoters, therefore, had ceased to obtain signatures to the memorial, which, however, he proposed to hand to the Prime Minister, as it briefly epitomized the history of the question. The movement in favour of State registration of nurses had been in progress for twenty years, and a bill with that object had been introduced into the House of Commons for six years past. During the last session that bill had been considered with more than usual care by the House of Lords, and eventually it had passed through every stage without a division, and, having been twice in committee in the form in which it finally emerged from the House of Lords it was amended in accordance with the views of several Government departments who were concerned. Previous to that the movement had received very striking support from the professional bodies mainly concerned. In 1889 the General Medical Council passed unanimously a resolution that such legislation was desirable. Again, in the three years 1895, 1904, and 1906, the British Medical Association, embracing some 20,000 out of the 30,000 members of the medical profession in the United Kingdom, passed a resolution practically unanimously in favour of such legislation; and, on the last occasion, 90 out of 93 delegates, all elected by constituencies in which the question had been practically canvassed, supported the resolution. Following that, in 1904 and 1905, a Select Committee of the House of Commons inquired into the whole subject, and reported unanimously that it was desirable that a register of nurses should be kept by a central body appointed by the State. Further, the opposition to the movement was considered before a Committee of the Privy Council in 1892, and on that occasion, as well as before the Select Committee of the House of Commons, the arguments against registration failed to influence the judgement of the authorities who had to decide. The movement was primarily an educational one, and its objects were to ensure that the community might have a guarantee that the trained nurses whom it employed were skilled in their professional duty. That did not obtain at the present moment, and the evil was that there was no standard, and no means of discriminating between the value of the different kinds of certificates issued by different hospitals and training schools. The public could discern no difference between a certificate given by a small private hospital with a few beds after a few months' experience and one given by the trained school of a great general hospital after a long and very varied experience. That condition of affairs was unfair to the nurses as well as to the public at large. It was unfair to the nurse who had taken the trouble to qualify in her profession by a long period of training and by considerable sacrifices, because she was on precisely the same footing as one who had had very much less training and much less experience. What the promoters of the movement were aiming at was to have nurses put on the same footing as members of other professions who stood in somewhat analogous relationship to the public. The medical profession, for instance, or such professions as those of the dentist, or druggist, or accountant, or, what was even more to the point in the circumstances, the midwife, were all subject to conditions similar to those which they desired to obtain for nurses. The midwife, who required a training of three months, and belonged to a less educated and lower social order than nurses, had at present the advantage of State registration, and had, in fact, just that which they were seeking to obtain for nurses.

In answer to an inquiry from the PREMIER, Lord AMPTHILL said the deputation was not there to ask the Government to bring in a bill, but to give facilities for the passage of a bill as had been done in the case of other bills. He pointed out that there were three bills at present before the House—Mr. Munro-Ferguson's bill, Mr. Findlay's bill, and a Scottish Bill in charge of Mr. Cleland.

The PRIME MINISTER: They are in a state of suspended animation.

Lord AMPTHILL agreed, but pointed out that they could be revived in twenty-four hours. They had hoped to be lucky in the ballot, and to get their Bill before the House in the present session, in which case its success in the House of Lords would have been assured. It had been thought that the Prime Minister would like to add to the legislative achievements of the Ministry over which he presided and to give facilities for a measure which must undoubtedly be classified as one of social reform. Also it was thought, for reasons which it was unnecessary to dwell upon, that it would be desirable to do something to mitigate the very prevalent complaint that women were unable to obtain the passage of legislation which concerned them; and, further, it had been thought that from a humane point of view Mr. Asquith might regard it as pleasant in his position of immense authority and power to help those who for so long had tried hard to help themselves, and that it might be not unwelcome to him to remedy the uneven working of the Parliamentary system—if he (Lord Ampthill) might so venture to speak of the system which prevailed in the House of Commons—and, to give a chance to a private member's bill. The promoters of the movement thought also that Mr. Asquith might welcome the opportunity of redressing a very real grievance which existed as between the nurse, who could not get registration, and the midwife, who had that advantage, before the grievance became more prominent and more emphasized by the full operation of the Midwives Act which should very shortly come about. Finally, it was hoped that the Premier would be glad of the opportunity of giving encouragement to the nursing profession, a profession which he (the speaker) was sure it would be agreed was one of singular nobility. He thought their country could

claim to have started the profession of nursing, and, consequently, it ought to be a matter of national pride to raise the standard of nursing in this country and to continue to set an example to other countries. In conclusion, he urged that, for the reasons he had given, the Government should give such facilities as might be in its power for introducing the bill into the House of Commons that Session.

Sir VICTOR HORSLEY, speaking on behalf of the British Medical Association, said he appeared there as representing that body and its Medico-Political Committee. The Association had on repeated occasions passed resolutions practically unanimously approving of the principle of the registration of nurses.

The PREMIER inquired whether Sir Victor said there was anything like unanimity in the medical profession.

Sir VICTOR HORSLEY replied that certainly there was very nearly unanimity, because he had had the honour of being in the chair at the meeting of the Representatives of the Association at Oxford in 1904, and the votes on that occasion were about 90 to 2 in favour of registration.

The PREMIER: Do you say that that represents the opinion of the profession?

Sir VICTOR HORSLEY replied that the British Medical Association was the only body that could represent the medical profession at all. The medical profession had no other machinery whereby its views could be represented. The British Medical Association numbered some 20,000 practitioners, and sent elected delegates to the Representative Meetings, and he thought it was certainly entitled to speak in the voice of the medical profession. But even if it were admitted, for the sake of argument, that the British Medical Association did not represent the medical profession, he would, at least, say that it was the only body in the medical profession which had taken the trouble to refer bills of such a kind to a committee and thoroughly to exhaust the subject. With regard to the three bills now in being, the principle involved in Bills No. 1 and No. 2, and the principle that the British Medical Association most laid stress upon was, that the qualification of the nurse should be no longer at the mercy of private individuals, or institutions. The Association felt very strongly that the time had arrived when in the interests of the public, as well as the medical profession, and the nurses themselves, that the guarantee of efficiency should be a State guarantee. With regard to the Scottish Bill, that left the question of guarantee of qualification practically to the teacher alone, and the British Medical Association had always held that that guarantee ought to be furnished by a statutory constituted authority who would control the proper examination.

The PREMIER: Are all the nurses to come up to be examined?

Sir VICTOR HORSLEY: All the nurses who are fit to be on the register ought to be examined.

Answering an inquiry of Mr. ASQUITH as to where they would be examined and whether provision was made for that in the bills, Lord AMPTHILL said provision was made for the Council to have general power to arrange examinations, and the Council would undoubtedly arrange for examinations to be held in convenient centres.

Continuing, Sir VICTOR HORSLEY said the point was one which had been already considered by the medical profession in the reform of the Medical Acts, and it was purely a matter of administrative convenience. He suggested that the form of protection was one with which every one would sympathize, because it protected the buyer as well as the seller; the public would gain by the fact of the nurse having a State guarantee that she was fit to nurse. From the point of view of the profession itself (or, if it was preferred, of the British Medical Association) that was exactly the same as that of the public. The medical profession wished to have nurses properly equipped in nursing knowledge, and desired that that should be obtained by a State guarantee. But more than that was wanted. They wanted the ethical status of the nurse and the discipline of the nursing profession to be secured, and from the medical profession's own experience of the working of the General Medical Council it was found that that could be best obtained by having a statutory constituted body like that Council in whose hand to place the government of the profession, which in this case was that of the nursing profession; it was believed that only by establishing a Council of that sort would an end be put to the undoubted existing evil of unqualified medical practice by nurses which constituted a danger to the public, and also constituted a scandal within the profession of nurses themselves. Finally, he assured the Prime Minister that the British Medical Association also sympathized very much with the nurses in the promotion of their own interests, and felt that if a nurse had worked hard for years, and had had a satisfactory course of education, and had passed an examination, she ought to be entitled to receive from the State a guarantee of her being fully qualified to nurse. As regards the constitution provided by the two English bills the British Medical Association also felt that the nurses should have a leading voice in the selection of those who were to govern.

Dr. BEDFORD FENWICK said that it was important to remember that a hospital certificate once given to a nurse became her private property, and could not be cancelled or withdrawn whatever the nurse did. There was always a very great difficulty in tracing nurses once they left their hospital employment, and from that followed the fact that it was very easy to forge or sell hospital certificates; that had been very often done, so that people who had little or no training as nurses could pose as nurses and obtain work as such. Many evils followed from that, and it was dangerous to the public. Further, he desired to call attention to the fact that the public were not only powerless to protect themselves against nurses who often nursed without sufficient knowledge, but by a decision of the Court of Appeal the public were powerless to obtain redress for injuries caused by gross carelessness or negligence in nursing. That decision was given in a case in which a patient sued an institution and obtained £300 damages. The institution appealed, and the Court of Appeal held that the institution had only to send out the nurse to the patient, and then she became under the control of the patient, and if the patient was injured it was only the patient who was responsible for any damage the patient sustained. The principles of the Bill introduced by Lord Ampthill, which had passed the House of Lords and was now before the House of Commons in charge of Mr. Munro-Ferguson, had been accepted by the Privy Council, the Local Government Board, the Admiralty, and the War Office, all of whom had made most valuable amendments in the passage through the House of Lords. The second bill flattered the promoters of the movement by taking their clauses wholesale, which was the sincerest form of flattery; and he thought the only difference was that the second bill required a larger Council as it asked for a Council of twenty-seven, and the Privy Council considered the General Nurses Council should not consist of more than sixteen. The second Bill also required a lower fee for examination. The third bill was a bill for Scotland alone, and Sir William Macewen, the distinguished Scottish surgeon, had been good enough to come to London in order to express the feelings of Scottish doctors and nurses with regard to it.

Sir WILLIAM MACEWEN stated he was present by reason of the very cordial invitation extended to him to form part of the deputation, on the understanding that he was to express his views and those of a considerable number of doctors and nurses in Scotland relative to State registration of nurses. He, and those whom he represented, were entirely in accord with the aim of both British Nurses' Registration Bills; they desired to obtain for nurses a recognized standard of teaching and examination for the three kingdoms, and that all nurses placed on the British Nurses' Register should have equal rights to practise as nurses in any part of Great Britain. The reason why so many Scottish nurses recorded their votes for separate registration for Scotland was due to a widespread misapprehension of the clauses of the British bills which at the time had not been seen by the Scottish nurses; they were misled by erroneous statements which were current regarding the bill, such as, for instance, that Scottish nurses would have to go to London to be examined. The removal of such misapprehensions had resulted in a decided change in the attitude of the Scottish nurses, so that many who had previously been in favour of the separate Scottish Registration Bill were now in favour of a single portal system for the United Kingdom. Having given instances of such a change in feeling, Sir William Macewen pointed out that a separate Scottish bill would

act as a barrier to the progress of the Scottish nurses' because it would confine such a nurse to Scotland. Having detailed his reasons for such a statement, he said that the Scottish nurses were quite prepared to welcome and pass the highest standard of examination that might be instituted by the boards appointed by the agency of the British bills, and Scottish nurses claimed, along with their English and Irish sisters, equal rights in exercising their profession in any part of the United Kingdom, so that they might have the opportunity of gaining such position as their merits deserved.

Miss ISLA STEWART, President of the Society for the State Registration of Trained Nurses, and Matron and Superintendent of Nurses at St. Bartholomew's Hospital, handed in a number of resolutions on the subject of State registration for nurses and petitions from the St. Bartholomew's Nurses' League, the Leicester Infirmary Nurses' League, the St. John's House Nurses' League, the Chelsea Infirmary Nurses' League, and the Victorian and Bournemouth Nurses' League in favour thereof. She pointed out that the present condition of the nursing world was most detrimental to trained nurses and to the progress of nursing education, and was therefore detrimental to the sick of all classes. She contrasted the condition of medical students who obtained their education at hospitals which had to conform to and carry out the general principles of education defined by the General Medical Council with the case of nurses. Throughout the United Kingdom there was no accepted method of training nurses, nor a generally adopted system of examining nurses whose training was finished. The certificates issued by every hospital varied greatly, and their value might vary from time to time as different methods were introduced. Such a condition of affairs resulted in confusion, and it was impossible to estimate the value of a nursing certificate. It was unfair that nurses who had had their four years' hospital work should find themselves competing as private nurses with women who had only had short terms of training in special hospitals, or who had been dismissed after three or four months' training as utterly unsuitable for nursing work. Trained nurses also resented the fact that there was no means of exercising professional discipline as in the case of other professions, and that there was no means of excluding from their ranks those who brought discredit upon them. It was the earnest desire of trained nurses that Parliament should give them the means of distinguishing trained nurses from the many people who adopted the uniform without justification. In conclusion, she emphasized the fact that trained nursing was a matter of national importance. Nurses were not only entrusted with the care of the sick in private houses and in public hospitals, but were being employed in increasing numbers in the different Government departments of the country, and were at the present time being organized to help in the Territorial Forces. They had proved their usefulness to the Colonial Office and to the Indian Medical Service; many thousands were now engaged in workhouse hospitals and other positions under the Local Government Board, and were being employed in increasing numbers in the sanitary service of the country, for the prevention of diseases in schools, and teaching cleanliness and health to children, whilst the work they did for the poorest and in the preservation of public health as district nurses secured the unqualified praise of those best able to judge their work. For the reasons which she had given she urged that nurses had earned the right to ask Parliament to give them that public recognition which had been accorded to other professions, namely, a method of professional control over their education and the enforcement of discipline in their ranks—which had done so much for the advancement of other professions—and thus increase their usefulness and raise a most honourable profession to its proper position in the esteem of the public.

Miss M. HUXLEY, of Dublin, Senior Vice-President of the Society for the State Registration of Nurses, said that for twenty years she had worked to obtain by constitutional methods recognition for the nursing profession by the State. She and her colleagues agreed that a properly constituted governing body should be appointed to standardize the work of nursing education. At the present time existing schools varied in their method of training and might be well designated as good, bad, or indifferent. Certificates were given to young women by institutions which provided no proper training—institutions in which the nurses were not taught by qualified people, and their work was not properly supervised; yet those women could go forth into the world certified as efficient, which undoubtedly they were not. There could be no question as to the importance of their work for the nation, and there was no doubt about their desire to qualify properly for it, and she was happy to say that that was one of the very few subjects upon which they in Ireland were agreed. It was not desired to exclude Irish nurses from the provision of the Act, and she earnestly begged the Premier to do all that he could to forward that for which they asked.

Mr. WILLIAM FIELD, M.P., said that what the previous speaker had said, although it might be a peculiar circumstance, was absolutely true, and they in Ireland were quite agreed upon the matter.

The PRIME MINISTER: That looks very suspicious, Mr. Field.

Mr. FIELD: There is always a suspicion about everything—even about the truth. He agreed with all the arguments which had been put before the Premier, and thought the matter was one of national importance. If Mr. Asquith would throw his power and influence into the matter, and give facilities for the bill to be introduced, there would be practically no opposition, and no lengthy debate. In conclusion the speaker made an appeal to the Prime Minister to further a measure in which he would have the support of the Irish party, which produced considerable merriment.

The PRIME MINISTER, who was received with applause, said: Ladies and Gentlemen,—I am very pleased to have the opportunity of receiving you here this afternoon and of listening to so important and representative a deputation on a subject with which, I confess, I have not myself much previous or first-hand familiarity. I understand that the object of the legislation which you are promoting is to provide, by means of a representative council, a machinery for the examination of persons taking up the nursing profession, to set up a register upon which only the names of those persons shall be inscribed who have satisfied the examination test, and to provide, under penal sections, that thereafter no one shall claim or assume to practise as a registered nurse who has not satisfied that test and has not come upon the register. That will not in the least, of course, as I understand the proposal, prevent such persons who have not complied with the test or come upon the register from pursuing the profession of nursing; and when Sir Victor Horsley said a few moments ago, in his very able speech, that the recognized nurse—that is to say, the nurse recognized by the State—is the only person fit to nurse, that would not be the necessary effect of this legislation. The unfit person, or the free-lance, if I may so describe her, would be still in a position to pursue her calling and to secure her clients and to carry on her profession just as she does now.

Lord AMPTHILL: The public would take her at their own risk.

The PRIME MINISTER: Yes, as they do now, in fact, but she would not be entitled, subject to a penalty, to describe herself directly or indirectly, as a registered nurse and as having satisfied such requirements as I understand to be within the scope of the proposed legislation. We are all agreed as to the growing importance and dignity of this great profession, as to the magnificent and indispensable services rendered to the medical profession and to the cause of humanity in the country, and I am certain that there is not a man or woman among us who does not wish to see it keep up the highest standard of efficiency both as regards skill and character, and every step that can be taken in that direction will, I am sure, command the sympathy, not only of all parties in the State, but of every English, Scottish, or Irish citizen who really cares for the best interest of his country. But here I have to deal with the question whether a particular machinery is best adapted to promote that. When my friend, Mr. Field, tells me that in Ireland they are all united, and that if we promote this legislation we shall have not only England and Scotland behind us but Ireland as well, I am bound to look at representations which have come to me from other

quarters. What do I find? Let us test the question of unanimity. I have a list of persons whose opinions are entitled to the highest respect who are absolutely opposed to this. I will not mention their names, but among them are the Chairman of the Westminster Hospital, the Vice-President of the Royal Free Hospital, the Chairman of the Middlesex Hospital, the Chairman and Treasurer of the London Hospital, the Chairmen of St. Mary's Hospital, the Hospital for Sick Children, University College Hospital, the West-End Hospital for Diseases of the Nervous System, the Royal Victoria Infirmary, Newcastle-on-Tyne, and King's College Hospital, the Treasurers of St. Thomas's and of St. George's and of a number of other hospitals.

Mr. FIELD: There are none from Ireland.

The PRIME MINISTER: I am not talking about Ireland, but when I am told that there is complete unanimity and that we should have all the authorities in our favour, I think the enumeration of those hospitals is enough to show that that is not the case. I asked Sir Victor Horsley, and he said quite truly no doubt that he represented the British Medical Association, which, I agree, is representative of the body of the profession. Again, I must point out that I have here a list of the names of one hundred members of the medical profession in London (again I will not give their names) who include some of the most eminent members of the profession in many departments, particularly in the departments of obstetrics and surgery, and also something like 120 members, also gentlemen of the highest distinction, in the provinces, who are entirely opposed to legislation of this kind. Then when I come to another equally important body, the matrons of hospitals, I have here the names of 49 matrons of London hospitals, and no less than 109 matrons of provincial hospitals, who are entirely opposed to this legislation. I cannot possibly, in the face of those facts, regard this as proving anything in the nature of unanimity on the part of persons interested in medicine surgery, or nursing. Therefore I think you will agree when I say that the Government must look upon it as a matter which, for the time being, is highly controversial in the views of those most directly concerned. It is not possible to treat it, unhappily, as one of those questions which sometimes, although not often, emerge in politics when all persons are agreed and when legislation goes through by general consent. In those circumstances I do not think you can expect me to do more than promise to give the most careful and respectful consideration to the arguments you have laid before me. I admit their weight. I have not heard the other side, but I think they are, prima facie, very cogent arguments indeed, and, having regard to the composition of the deputation, and the authority which it possesses, I can assure you that they will be most carefully and sympathetically considered by my colleagues and myself. For the time being, however, you will agree with me that, in view of the facts I have stated, you cannot regard this as other than a question which requires very careful and detailed examination in view of all the interests concerned.

The deputation then withdrew.

A NEO-MALTHUSIAN propaganda has been set on foot in various towns of France, especially in Normandy. The municipal authorities have tried to forbid the lectures, on the ground that they are opposed to public morality. The Société Normande d'Hygiène Pratique, on the initiative of MM. Brunon, Cerné and Neé, has passed resolutions approving of the action of the municipal authorities, and expressing the opinion that if such lectures are delivered the lecturers should be prosecuted.

THE American Therapeutic Society has, at the suggestion of Professor Remington, Chairman of the Revision Committee of the United States *Pharmacopoeia*, decided to appoint a standing committee on therapeutic research. The by-laws of the society prohibit the introduction by paper or discussion of secret, patented, or trade-marked medical products; but they are careful to test the efficacy, both by laboratory research and a thorough sifting of clinical evidence, of various drugs and preparations of drugs now contained in the *Pharmacopoeia*. The committee will report on its work at the annual meeting of the society, in order that there may be placed before the profession trustworthy results of systematic investigation concerning those remedies which are in daily use.

THE

THERAPEUTIC APPLICATIONS OF RADIUM:

METHODS AND RESULTS.

THE INFLUENCE OF RADIUM ON CERTAIN TUMOURS OF THE BREAST, ESPECIALLY CARCINOMATA.

[FROM OUR PARIS CORRESPONDENT.]

THE articles which have appeared already in the BRITISH MEDICAL JOURNAL will have enabled the reader to understand fully what Dr. Wickham considers the crucial point of all his research, that is, the treatment of cancer situated at some depth below the skin surface. As an example of this possibility this article will contain the results and conclusions of Drs. Wickham and Degrais in the treatment of cancer of the breast.

Clinical experience and histology have established that the radiations of radium exercise a special elective action on certain morbid cells of new formation; moreover, these rays, by reason of especially great power of penetration—the most penetrating traverse a thickness of several centimetres of lead—are able to act in the depth of the tissues; it thus became of interest to attempt the application of this dual property to neoplasms of the breast.

The first attempt dates from November 7th, 1907. Dr. Triboulet was interested in the case of a lady with a malignant growth in the left breast, but owing to the advanced age of the patient surgical intervention was deemed inadvisable. The tumour was of the size of a Tangerine orange, and was adherent to both the skin and the costal fascia; the nipple was retracted, and a little to its outer side the skin was ulcerated for an area of 2 square centimetres; the skin around was rough, like the skin of an orange, and on the point of breaking down. There was one enlarged lymphatic gland in the axilla, and acute pains were felt over the whole side of the chest. Under the supervision of Dr. Triboulet these lesions were subjected to radium. At the present time, eighteen months since the treatment, this lady is in good health, and she has no pain; there is no sign in the region of the breast or axilla to cause anxiety. All that remains is a quiescent movable nodule of fibrous consistency, which seems to have resulted from the transformation of the neoplasm.

Radium was applied in this case as follows: The attempts at filtration which Drs. Wickham and Degrais had undertaken before this date with screens of different kinds (cotton-wool, aluminium, lead protected by rubber), had shown them the way to modify the therapeutic action of the radiations; these after filtration were necessarily composed of rays less in number, but of greater penetrating power. In this case a filter of lead 1.27 millimetres in thickness was used with a thin sheet of rubber over it; the radium was applied in series of ten or twelve daily applications of one and a half hours' duration each time, followed by a period of rest for one or two months. Gradually, and without any irritation of the skin surface, the morbid process was first arrested, and then gave place to one of repair. In February, 1908, the ulcerated surface had cicatrized; the tumour had diminished in volume, was no longer attached at its base, and the skin had regained a certain amount of suppleness, the pain had entirely ceased, and progressively the signs of amelioration became more pronounced. These results were only obtained very slowly, but subsequently the method of "*crossed fire*" was applied; and having gained experience in dosing the rays, Drs. Wickham and Degrais were able to accelerate the process of repair.

The region of the breast lends itself especially well to the method of "*crossed fire*"; two apparatus are placed simultaneously facing each other on opposite sides of the breast. By utilizing a radiation of activity 2,000 to 3,000, consisting of rays of great penetrating power, that is, the hard beta and the gamma rays, obtained by filtration through lead screens, the apparatus can be left in position all night for several nights in succession and the radioactive action in the deeper parts is greatly increased by the crossing of the rays. In certain cases four apparatus

have been applied, thus quadrupling the action at a depth. A female patient of Dr. Moutard Martins, too old for surgical intervention, suffering from a malignant cancer *en cuirasse*, was treated in this way. Treatment was commenced on December 11th, 1908. Fifteen applications were made during a month, on alternate nights, in all 160 to 180 hours of application of apparatuses which crossed and multiplied in the deeper tissue their radioactive energy. A fresh series of similar applications was made in February. The retrogression occurred very simply, as in the preceding case, but much more rapidly. At the present time—five months later—there are no adhesions, the volume of the tumour has greatly diminished, and the skin gives a mobile, hard, quiescent, nodular sensation, which would seem clinically to correspond to the fibrous transformation which has been recently described histologically in reference to the retrogression of epitheliomatous neoplasms.

In another case, though the tumour was of a character favourable to operation, it was deemed advisable to give the patient chloroform, on account of bronchitis and asthma; the radium rays were used in the same way, and the tumour has diminished by two-thirds in three months.

Lesions of a different nature are also influenced by radium. In December, 1907, the right breast in a lady aged 33 was removed by Professor Berger. A subsequent microscopic examination of the tumour showed it to be an adeno-fibroma with cyst formation. One year later the left breast presented the same symptoms as had necessitated the removal of the right—a large mobile subcutaneous tumour with sharp radiating pains. Two doctors in London advised operation; but, as the patient refused further surgical intervention, Dr. Robinson advised the patient to try the effects of treatment by radium. After three months' treatment by the method of "crossed fire" combined with strong filtration, the tumour, which before the treatment was the size of a small orange and was increasing in size, is now so reduced that it is lost among the glandular nodules of the breast, which is of large size, and the pains have entirely ceased.

The following are the conclusions that Drs. Wickham and Degrais have arrived at from their researches to date. The technical advantages of radium are due to:

1. The ease in application, and its painless character allows the apparatus to be left in position for a great length of time without inconvenience to the patient in his daily occupation.

2. The use of lead filtration screens reduces the radiations in such proportions that their action on the neoplasmic cells is slow, and the patient is not exposed to any harmful irritation of the tissues.

3. The smallness in quantity of the radiations can be compensated for, not only by the long duration of each application of the radium, but also by the method of "crossed fire," which increases the intensity of the action of the radiations in the deeper tissues.

4. These radiations, being composed of rays of extreme penetrating power only, have little effect on the cutaneous surface, but exert their special action at a depth.

The practical conclusion from the above considerations is that radium treatment is capable of rendering different kinds of service in the treatment of certain cancers of the breast:

1. Radium can cause the retrogression of a cancer of the breast to such a degree as to bring about all the appearance of a cure.

2. Radium can transform an inoperable cancer of the breast into an operable one.

3. Radium can act on recurrences of small dimensions occurring after operation on cancer of the breast.

4. Radium can act on some affected lymphatic glands if they are not too much involved.

5. It can relieve the pain, and diminish for a time the haemorrhage and secretions from cancerous ulcerations, and thus prolong life.

6. It can also be used after surgical operation as a preventive measure.

These conclusions are not of universal application, and are limited to cases in which the growth is sufficiently localized and of small extent; the benefits must not be exaggerated, and a great drawback in practice is the considerable quantity of radium necessary for each treatment.

THE PRODUCTION OF RADIUM FROM URANIUM.

PROFESSOR SODDY described in the last number of *Nature* an experiment demonstrating for the first time the production of radium from a pure uranium salt. Three separate solutions of pure uranium nitrate were made, containing 255, 408, and 278 grams of uranium (element) respectively; they have been kept under observation since the date of purification for 3.53, 2 40, and 2.73 years respectively. By improved methods the limit of experimental error in the estimation of radium was reduced to 10^{-12} grams. The radium in the oldest of the solutions is 4×10^{-11} grams, an amount nearly twice as great as initially. Five examinations made from time to time have shown that the production of radium has varied proportionally to the square of the time. It is interesting to notice that this result was prophesied on mathematical grounds by Rutherford in the more general forms, that, provided all the periods are long, the initial rate of production must be proportional to the same power of the time as the number of substances (including uranium) in the series before radium. The fact that the amount of radium produced in the very early stages is rather less than calculated suggest the presence of another intermediate substance besides ionium, half of which would disintegrate in two years, or which, in other words, would have a two years' period.

The period of ionium may be fixed at 10,000 years, the limit of error probably not exceeding 20 per cent.

MOTOR CARS FOR MEDICAL MEN.

COST OF RUNNING.

T. D. N. writes: The following "estimate" shows what I take will be the probable cost of running a 10-12-h.p. Swift motor car.

The "running costs" are given me by the makers. They are, however, underestimated. In 12,000 miles more than £12 for tyres would be incurred. I have been told that it is unfair to count interest on capital spent, but so far from being unreasonable it is, I know, a very real item in the running of more than one doctor's motor car. I know more than one medical man who runs a car purchased on borrowed money.

I take no count of taxes, man, tips, etc. These would pile up the total. I publish these figures simply to show the hopelessness of the ordinary country medical man running a car and at the same time keeping open a banking account, or, as I am anxious to own a car, in the hope that some one with actual experience will be able to show that my estimate is far wrong, and where it is wrong.

ESTIMATED COST OF RUNNING A 10—12 H.P. "SWIFT" ON A BASIS OF 35 MILES—A DAY.

Petrol: 245 miles (27 miles to the gall.), 1s. gall., per week	£0	9	1		
Oils, grease, etc.: 245 miles	0	4	4		
Tyres: On basis of each tyre lasting 6,000 miles. Add cost of 2 plain covers at £3 each. Retreading 2 covers at £2 2s. 5d. each	£4	4	10		
One new tube	1	0	0		
Small repairs to tyres	0	15	2		
Approximate cost of tyres for running 12,000 miles				£12	0 0
Cost of running 245 miles, per week	0	4	11		
Minor adjustments, etc. ,,	0	2	8		
Total, per week	£1	1	0		
Actual running costs, per week	£1	1	0		
,, ,, per mile	0	0	1.03		
,, ,, per year	54	12	0		
Running costs as above, per annum	£54	12	0		
Insurance, per annum	11	0	0		
Depreciation, on basis of keeping car 5 years and selling then for £120—that is, original cost £320, selling price £120; loss divided over 5 years	40	0	0	per annum	
Interest on £320 at 5 per cent. per annum	16	0	0		
Repairs	20	0	0		
Accumulators, painting, etc.	8	0	0		
Overhaul	10	0	0		
Total, per annum	£159	12	0		
Per mile	£0	0s.	3.02d.		

G. P. writes: In reading the letters on the Budget I could not help thinking how well it would repay some of your correspondents to overhaul or scrap their carburettors. When an 8-10 car will only do 15 miles to the gallon on a stopping run she must be in a bad way somewhere. I possess an 8-10 2-cylinder car, which I have driven for nearly a year, and can get 33 to 35 to the gallon on my stopping runs. On a long run with only one engine stop—for lunch—I got slightly over 42 to the gallon. My car weighs practically 12 cwt. without

passengers, and can, at a pinch, take three people abreast. At 15 miles to the gallon I should be obliged to bid her a long good-bye.

MEDICUS, who is considering the purchase of a motor car for professional work, asks for opinions upon the following points:

1. What is the most economical and useful size or power of car for general work, and approximately what would be the cost of such a car?

2. Is a single, or multi-cylinder, car likely to be the more reliable for ordinary work?

3. In purchasing a car I should like to have the advice of a reliable motor engineer, as I believe by doing this I shall be relieved of a good deal of worry in connexion with the selection and purchase of a car, and at the same time obtain good value for my money. Can any medical man recommend such an expert?

4. I should like to know the cost of running a small car in order to compare it with the cost of hiring at present, such costs to be on a basis of town work.

*** 1. 9-10 horse-power, which if an open car would cost, say, £220, and somewhat more with an enclosed body.

2. The single cylinder is equally reliable, but is a little more noisy.

3. We cannot recommend an independent motor engineer from personal knowledge, the only one we knew having given up this branch of business. Several motor engineers advertise in the *Autocar*. "Medicus" might join the Automobile Co-operative Association, 1, Albemarle Street, which has an expert adviser.

4. Particulars have been given from time to time in the columns of the JOURNAL of the cost of running motor cars by correspondents. (See also above.)

TYRES.

BEESWING writes: I am a country doctor whose practice covers a large area in a hilly district, and I use my 10-12 car regularly. Tyres were my bugbear until I fitted a pair of Lynton wheels and tyres to the driving axles. I have now covered a considerable mileage and am delighted with them. The initial cost is only slightly in excess of that of armoured pneumatic tyres, and the ultimate cost per car mile is approximately half that of pneumatics. At the same time there is little appreciable difference in the riding. A friend of mine has them on the driving wheels of a 10-12 Humber, and has gone 5,000 miles with no trouble whatever.

MOTOR CYCLES.

J. M. (Cape Colony) would be glad of hints with regard to the most serviceable motor cycles suitable for negotiating rivers, drifts, and stiff hills, and free from the bad habit of breaking down twenty miles from home.

M.A. writes: In answer to "L.R.C.S.," regarding the "Wolf" motor cycle, I invested in a new one at £19 19s. some two months ago, and have run it in fair and foul weather. As far as the engine and machine is concerned I have found it excellent. It is easily started, and can be mounted by the step. By taking off the belt it can be pedalled as easily almost as an ordinary "push-bike." There is no vibration, the machinery is easily understood, and the running expenses very cheap. As a "run about" for short distances and constant stoppages for visits, this make of motor cycle should leave nothing to be desired if only the belt and its attachment could be relied upon. I have had endless trouble with the belt, which is a round one with hook connexion running over a jockey wheel. These belts either stretch unduly, slip, or pull through at the hook connexion. I have had advice from experts down to the village carpenter, and all have failed; though the village carpenter's contrivance was the best and lasted the longest. If "L.R.C.S." contemplates purchasing a "Wolf" motor cycle I should strongly advise him to buy the make which has a V belt on a direct drive, and handle-bar control. He should then have an ideal machine for short distances, or as a "run about" in general practice.

MAKERS' ANNOUNCEMENTS.

THE Wolseley Tool and Motor Car Co., Ltd., of Adderley Park, Birmingham, and York Street, Westminster, desire to give notice that to identify the Siddeley Autocar more closely with the name of the makers, they will, in future, be known as the Wolseley-Siddeley cars. The same company issues a catalogue of motor tyres and accessories; it is well illustrated and seems to be very complete, showing the prices for different makes of tyres, parts, and accessories.

HUMBER LIMITED have issued a small pamphlet describing their motor car show rooms at 60 to 64, Brompton Road, London, S.W. Trial runs will be arranged without committing the inquirer to purchase.

THE Borough of Finsbury this year has a medical Mayor, and on May 13th Dr. and Mrs. W. A. Dingle were "at home" in the Town Hall, Rosebery Avenue. A concert followed the reception of the guests, the evening ending in a dance. The company included a large proportion of medical men.

Medical News.

HIS ROYAL HIGHNESS THE PRINCE OF WALES has nominated Major R. J. Blackham, R.A.M.C., an Honorary Associate of the Order of St. John of Jerusalem.

THE late Rev. Thomas Cox, of Croydon, whose will has now been proved, bequeathed to the Croydon General Hospital a sum of £1,000.

DR. W. R. WILLIAMS, Machynlleth, has, on the nomination of the Lord Lieutenant, been placed on the Commission of the Peace for the county of Montgomery.

DR. SEPTIMUS GIBBON, for nearly forty years Medical Officer of Health for Holborn, who died on April 17th, aged 83, left estate valued at £90,304 gross, with net personalty £81,762.

ON the occasion of his marriage Dr. George England Kerr, of Inverness, was the recipient of a handsome Panhard landaulette motor car and a purse of sovereigns from his patients and friends in Inverness and district.

THE annual meeting of the Durham Medical Graduates' Association will take place on Friday, May 28th, at 4 p.m., at 11, Chandos Street, London, W. The dinner will take place the same evening at the Café Royal, Regent Street, W., at 7.30.

THE May dinner of the Edinburgh University Club of London will take place at the Criterion Restaurant on Friday, May 28th. Mr. H. S. Butcher, M.P., will take the chair at 7.30. The following guests have accepted invitations to be present: The Lord Advocate, Sir Henry Craik, M.P., and Barry Paine, Esq.

THE annual dinner of the Post-Graduate College and past and present members of the West London Hospital will be held on June 16th at the Trocadero Restaurant; the chair will be taken by Dr. P. S. Abraham. Further particulars can be obtained from the Dean at the hospital.

WE are informed that Dr. A. Holdsworth Davis, after holding the position of Honorary Surgeon to the Monkwearmouth and Southwick Hospital, Sunderland, for eighteen years, has, much to the regret of the Hospital Committee, resigned his appointment, and has been succeeded by Dr. A. J. Gilbertson.

THE Croonian Lectures of the Royal College of Physicians of London will be delivered at the College by Dr. W. S. Lazarus-Barlow on Tuesdays and Thursdays, June 15th, 17th, 22nd, and 24th, at 5 p.m. on each day. The subject is radio-activity and carcinoma—an experimental inquiry.

THE annual dinner of the Indian Medical Service will be held at the Gaiety Restaurant, Strand, on Thursday, June 10th, at 7.45 p.m., Sir George Birdwood, K.C.I.E., in the chair, when the service will have the honour of entertaining General Sir O'Moore Creagh, V.C., K.C.B., Commander-in-Chief in India elect as their guest. Officers intending to be present should communicate without delay with the honorary secretary, Lieutenant-Colonel P. J. Freyer, 27, Harley-street, W.

THE following gentlemen have been elected office-bearers by the Partick and District Medical Society: President, Dr. J. Gibson Graham; Vice-Presidents, Drs. W. Snodgrass and J. Morton; Secretary, Dr. A. W. M. Sutherland; Recording Secretary, Dr. J. King Patrick; Treasurer, Dr. J. Gracie. Eight members of council, including the outgoing president, Dr. Arthur Mechan, have also been appointed. The first session of the society, which was formed last year, seems to have been very successful.

THE annual meeting of the North India School of Medicine for Christian Women was held on May 5th at Trinity Church House, Great Portland Street, London. The enterprise represented by this title is carried on at Ludhiarna, in the Punjab, and has now been in progress for some fourteen years. It includes a hospital, which is apparently conducted on very active lines. Last year the new out-patients numbered nearly 20,000, and in-patients over 1,200; the number of beds constantly occupied was seventy-six, and 1,100 operations were performed. It is not a school of medicine in the proper sense of the term, as the women it trains are intended to be employed as nurses, dispensers, and hospital assistants. The undertaking appears to stand in need both of more money and of additions to its medical staff. What standard of knowledge the students of this school are expected to reach before receiving certificates is not indicated in the material which has reached our hands. Some assurance that it is sufficiently high seems desirable, since the primary object of the institution would appear to be, not education, but the spread of Christianity.

British Medical Journal.

SATURDAY, MAY 22ND, 1909.

SPIRITUAL HEALING AND CANCER.

ONE of the most serious difficulties in arriving at a correct conclusion as to the curative powers claimed for spiritual healing is the intangible nature of the evidence. For instance, most of the patients on behalf of whom prayers were asked in the earlier numbers of *The Healer*—which is published by Mr. J. M. Hickson, and which, we suppose, may be regarded as the organ of the Society of Emmanuel of which that gentleman is the president—are vaguely described as suffering from "rheumatism," "loss of nerve power," "spinal trouble," "internal weakness," "low vitality and great weakness," "heart trouble," "internal trouble." Some indeed are said to be the subjects of "locomotor ataxy" and "consumption," but no particulars are given by which the diagnosis can be checked, and it is difficult or impossible to trace the result of the treatment. In a report of the past year published in the number for November, 1908, Mr. Hickson does give some details of a few cases. The two following taken at random may be given as specimens: "Priest. Cancer in bowel. "Specialist who examined him nine months ago under "an anaesthetic said that an operation was impos- "sible, and that he could not live for more than about "three months. He then sought help through Divine "Healing, when he was anointed with oil in the name "of the Lord, and Mr. Hickson laid his hands on him "in prayer, after which he was examined by the same "Specialist, who found that a process of absorption "was taking place. He is now quite well." "Lady's "Maid. Age about 28. Suffering from rupture, which "gave great pain. One year under treatment at "Middlesex Hospital, and while waiting for an in- "patient's bed for operation was advised to seek help "through Divine Healing. After three visits to Mr. "Hickson, two months ago, she is now quite well and "strong, with no pain or swelling. Her mistress also "reports that serious defects of her character are no "longer apparent and her whole spiritual nature is "quickened and her duties are better done."

These cases are sufficiently definite to be tested, and we should be glad if Mr. Hickson would supply us with the information necessary for the purpose. We should undertake not to publish the names of the patients or any particulars by which they could be identified. We should place the results of our investigation honestly before our readers.

In the meantime, we have succeeded in tracing a case more remarkable than either of the two just cited, and the result is very instructive. It was related in the third number of *The Healer* (March, 1908, p. 9) by the Right Rev. L. G. Mylne, D.D., formerly Bishop of Bombay, in a paper entitled "The Anointing "of the Sick for their Healing." It has already been quoted in the BRITISH MEDICAL JOURNAL of January 9th, 1909, p. 109, but to enable the reader to form a correct judgement on the subject it must be repeated here. Bishop Mylne said: "In the latest up-to-date "book on cancer, which is in the hands of the "most scientific men of to-day, there is a case "quoted which is, I have no doubt, correctly said "to be a unique one of *abortive* cancer. The "case is fully described from a medical point of view "—how a patient, stricken unquestionably with "cancer, was found to have, in place of the tumour, "something which could only be called abortive "cancer, the like of which was never heard of before. "I happen to know the whole history of the case "from the brother of the patient, himself a medical "man. It was this: The patient had been suffering "from a serious affection of the throat. He went to "one specialist after another. Three eminent men "told him without hesitation that he was suffering "from a cancer growing on the vocal cords, and that "nothing but their total excision could save his life. "He was a hard-working priest of our Church, and, of "course, the operation meant that he would never "utter a word again. However, his life had to be saved. "The doctors came; the throat was laid open; the "operator had his knife in his hand to excise the vocal "cords. He stopped dead. Instead of applying the blade "of the knife, he took hold, between his thumb and the "handle, of all he found there, and peeled it off just "like the skin of a fruit. Between the diagnosis and "the operation the patient had been anointed with oil "in the name of the Lord. That is one of not a few "cases which some of us know about, but it is by far "the best defined one I know of, and one that is "actually celebrated in medical circles; not of course "being quoted as an instance of what may be done "by anointing, but as a case unique in surgical "experience." We went on to say that we should be glad to have fuller particulars, and we respectfully invited Bishop Mylne to furnish us with the name of the "latest up-to-date book on cancer" from which he quoted.

In the meantime, we had been put on the track of the case by a distinguished physician, and had obtained a report of the case from the surgeon who operated. All, therefore, that was wanting was the name of the book from which the quotation purported to be taken. We communicated with Bishop Mylne on the subject, and we have to acknowledge the courtesy with which he received our request for information and the pains he took to procure it for us. His Lordship was, however, unable to gain the consent of those to whom he applied to help in any way in supplying an answer to a very simple question. As the matter is one of general interest not only to the medical profession but to the whole of mankind, we think it right to give the true facts of the case, of course without disclosing the patient's identity.

The operator was Mr. Butlin, who has been good enough to give us permission to publish the following account. He saw the patient, who was at that time 37 years of age, in 1890. There was then a very white patch, flat and sessile, on the middle of the left vocal cord, looking like a papillary growth. A month later the surface seemed to be ulcerated. The patient was seen by other well-known specialists, who, like Mr. Butlin himself, were puzzled as to the nature of the disease. Tubercle, papillary growth, and malignant disease were in turn considered, but no definite conclusion was arrived at. The patient was treated in various ways for four months before it was thought right to open the larynx. Mr. Butlin then operated in the presence of an eminent specialist, a distinguished surgeon, and another medical man, a friend of the patient. When the larynx was opened,

there was found to be no ulceration, although all present thought they had seen it with the laryngoscope. The diseased surface looked more like a thick patch of leukoplakia than anything else. The cord was scratched with an instrument and the patch came away clean and complete, leaving the cord underneath quite healthy. Mr. Butlin afterwards examined sections of it with the microscope and found that it consisted of horny epithelium, arranged in layers. He therefore supposes it was really a kind of leukoplakia. The larynx was closed, the patient recovered, and his singing as well as his speaking voice was restored as if nothing had ever been the matter.

Mr. Butlin adds that it was truly a very remarkable case, and one which does not quite correspond with any disease of the larynx of which he has knowledge either from observation or from reading. He does not remember ever to have published the case. This makes the quotation from "the latest up-to-date book "on cancer, which is in the hands of the most "scientific men of to-day," all the more mysterious. We cannot understand the objection which Bishop Mylne met with in his efforts to procure the reference for us, particularly as the case had been published in *The Healer* in a way which—no doubt quite unintentionally—was somewhat misleading.

It does not lie within our province to discuss the effect of the anointing with oil which is said to have taken place between the diagnosis and the operation; nor do we question either the good faith or the sound judgement of those who see in the issue of the case the manifestation of a supernatural agency. But it might have been thought that in regard to a case admittedly remarkable, they would have preferred to take advantage of the opportunity of helping to make the facts as public as possible, rather than to place obstacles in the way of their being made known.

We have only one thing more to say. As there is conclusive proof that the disease was not cancer, "abortive" or developed, the case should not be brought forward as an example of spiritual healing of that disease. We have used it here to point the moral which we are anxious to impress on spiritual healers of all shades of belief and practice—namely, that they should be more cautious and, above all, more precise, in their statements than, as a class, they have hitherto been. Moreover, they should not only verify their references, but give earnest inquirers the opportunity of doing so for themselves.

THE FEBRILE REACTION.

AN interesting and important contribution has been made by Dr. Fr. Rolly of Leipzig to the discussion of the relation of the febrile reaction of the body to infection. While many have held that fever is the natural reaction of the body to invasion by micro-organisms, a part of the defensive mechanism, others, and particularly Liebermeister, have maintained that fever is in all cases harmful; that the rise of body temperature is the actual cause of parenchymatous degeneration and fatty infiltration of the organs; and that it must be combated by vigorous antipyretic treatment.

To-day it is generally recognized that the whole process of inflammation is defensive and curative in purpose. The hyperaemia and oedema of the inflamed part signify the flooding of the infected tissues with blood plasma and phagocytes, the plasma activating the phagocytic process and neutralizing the toxins produced. The fomentations and incisions of the surgeon and the cupping and congestive treatment of Bier are alike directed towards flooding the inflamed tissues with plasma. The success that accompanies the application of fomentations and poultices, as hot as the patient can bear them, points to the utility of the local febrile reaction. It is a well-established fact that the velocity of all protoplasmic and ferment action is diminished by cold, and increased by heat up to a certain limit. Rolly and Meltzer found that phagocytic action reached its maximum, not at 37° C., the normal body temperature, but at 39.5 to 40° C. (104° F.). By 41.5° C. (106.7° F.) the phagocytic power was significantly decreased. By placing rabbits in a well-ventilated, heated chamber, and feeding them in a suitable manner with plenty of watery green food, these authors succeeded in keeping the animals for from four to twenty days in a hyperthermic state. With a body temperature varying between 39.5 and 42.5° C. the animals remained well and healthy, and their organs, in consequence of this simple non-infective rise of body temperature, showed no signs of parenchymatous degeneration. The production of antitoxins and agglutinins was accelerated in such warmed animals in comparison with the controls kept in a cold chamber. In respect of all the defensive mechanism the animal with a moderately-raised body temperature has the advantage over one that is kept at normal or subnormal temperature. Four rabbits of one litter which were kept in the hot chamber for days with a body temperature of 39.5° to 42.5° C. were killed and their organs contrasted with those of a fifth rabbit, one of the same litter, which was kept under ordinary conditions. Microscopic examination showed none of those parenchymatous changes in the rabbit's organs which are so easily brought about by febrile infections. The protein katabolism and nitrogen output was not increased to any notable degree so long as the body temperature was kept under 40° C., and the increase at higher temperature was very much less than in states of infective disease. Similarly Linser and Schmid observed in two brothers, who had little power of heat regulation, owing to a skin affection, that raising their body temperature to 39° C. by external warmth even for several days, had no effect on the nitrogen output, while a temperature of 40° C. and over increased it. Further, slight changes only were produced in the blood by a simple hyperthermic state as compared with the profound changes produced by infections.

It has been suggested that one function of the febrile reaction of the body on infection is to raise the temperature to a height which is unfavourable to the growth of the infecting bacteria. The evidence in favour of this hypothesis is based chiefly on observations of Pipping, who found that the growth of pneumococci on broth was influenced unfavourably by fever temperatures. Rolly and Meltzer found that this could not be the case when the organisms actually infected the body. The febrile reaction does not destroy the organisms by overheating them, but by favouring the bactericidal powers of the body. The conclusions reached are that fever temperatures up to 40° C. (104° F.) are part of Nature's cure, and should not be combated by antipyretic means unless serious symptoms of disturbance of the nervous system or of the circulation and respiration arise. Then the treatment should be directed to the relief of the untoward symptoms rather than to lowering considerably the body

temperature. To effect this warm sponging or warm baths are far more effective than cold, for the latter produces vaso-constriction of the skin and defeats the end in view, while warm sponging dilates the cutaneous vessels and the evaporation of the water effectually cools the blood.

It has been demonstrated by Pembrey and others that muscular activity raises the body temperature notably in animals and men. Leonard Hill and Martin Flack found a rectal temperature of 102° to 103° F. in students after a football cup tie or half-mile or mile races, and in two a temperature exceeding 104° F. (in one 105° F.) after a three-mile race. Stokers working in steamships in the tropics, puddlers in ironworks, miners in Cornish mines, where the temperature may be 93° F. and the air wet with moisture, dwellers in tropical regions where heat waves occur, must all, like Rolly and Meltzer's rabbits, live for periods with raised body temperature; and every man who takes violent exercise does the same.

It is doubtful whether the rectum is the most accurate place to take the temperature. It gives the highest reading no doubt, but probably the axilla gives a reading which is nearer to that of the brain, and perhaps of the heart—the two essential organs to be considered. In severe muscular exertions, when the heart is becoming exhausted, venous blood becomes pooled in the abdomen, and this raises the rectal temperature higher than elsewhere.

It must always be borne in mind that the temperature of the body varies from one part to another, and is never absolutely steady or constant anywhere. Curious and unexplained oscillations of body temperature occur from time to time; these were being studied by methods of continuous record by the late Dr. Gamgee, and results of a research which would have been of great interest have been broken short by his lamented death. To the last number of the *Proceedings of the Physiological Society* Leonard Hill and Martin Flack contributed a series of observations on the effect of hot baths on themselves and students. By immersion in water at 105° F. to 110° F. the body temperature can be raised in some twenty minutes to 102° F. to 104° F. This produces hyperpnoea, the evaporation of water from the lung being then the chief means of keeping down the body heat; the partial pressure of carbonic acid in the alveolar air is lowered by the hyperpnoea from the normal 5 to 6 per cent. to 3 to 4 per cent.; the body is not only cleansed of carbonic acid but well oxygenated by the hyperpnoea. In consequence, after such a hot bath, the breath can be held twice as long as normally. The extra oxygenation produced by the hyperpnoea and quick pulse of fever must be part of this curative reaction. The vasomotor system is so profoundly affected by the hot bath that the blood pressure may sink to 60 mm., while the pulse becomes very frequent and thready. The cutaneous vessels are greatly dilated, and most of the blood determined to the surface.

On standing up the pulse-rate may increase by 40 beats a minute, and the subject faint from the sinking of the blood into the relaxed vessels of the lower parts of the body. All these conditions are immediately relieved by a cold douche; the skin constricts, the pulse becomes full and strong and far less frequent, the hyperpnoea ceases, and the blood pressure rises, the faintness disappears, the axillary temperature, which was equally as high as the rectal, falls to or below normal, while the rectal temperature remains febrile owing to the driving of the blood from the skin into the abdominal organs.

A very hot bath followed by a cold douche is a means of affecting the body most profoundly, and one which the Japanese use habitually both for pleasure and as a curative agent. The temperature of the bath which the workpeople accustom themselves to resist for a few minutes is said to be extraordinarily high.

THE INDIAN MEDICAL SERVICE.

THE correspondence published as a white paper entitled "Measures for promoting the growth of an "independent medical profession in India," presented to Parliament on May 20th, shows, we fear, that there are considerable grounds for the apprehension that the changes in the Indian Medical Service which the Secretary of State has directed to be carried out will seriously affect the future of that service. As will be seen (SUPPLEMENT, page 312) the matter was raised in a dispatch from the Secretary of State to the Governor-General on August 9th, 1907, referring to dispatches by Lord George Hamilton, dated as long ago as January and December, 1900, expressing the opinion that it would be a great benefit to India if medical men established themselves in private practice in that country in the same way as in other parts of the Empire without entering the medical service connected with the army. Lord Morley's first dispatch asked whether any steps had been taken to give effect to this policy. In the reply from the Government of India the whole question is dispassionately discussed; and while entire sympathy is expressed with the desire to promote the growth of an independent medical profession, the difficulties in the way of carrying out the policy proposed are clearly set forth. The general conclusions of the Government of India are that the changes should be very gradual and tentative, and in the main, but not exclusively, from the bottom, and only made as really qualified candidates become available in India, nothing being done to lower the efficiency of the medical schools and their hospitals; that a sufficient number of civil appointments should be reserved to provide for the economical employment of the war reserve of the Indian Medical Service; and that the necessity of maintaining the attractiveness of the service should be borne in mind in allotting them. Lord Morley accepts these principles, but at the same time demands an actual reduction in the numbers of the Indian Medical Service in civil employment.

The result of the proposed measures must depend on the way in which they are carried out. The Government of India fully realizes that the present European staffs of the medical colleges will become more than ever essential if the graduates they teach are to be given more responsible Government posts than heretofore, and as these posts also form one of the main attractions to first-class men to enter the Indian Medical Service, this is satisfactory so far as it goes. It is probable that some additional minor professorships to be held by Indian graduates will be created and will still further strengthen the teaching. Of more importance to the Indian Medical Service as a whole is the number of civil posts to be taken away from the officers recruited in England, and it

may be observed that the last entrance list included no less than five Indian graduates—probably as many as it will be possible to find suitable employment for. The Government of India points out that it is essential to retain sufficient civil posts to employ the Indian Army Medical Reserve, and that about half of the civil posts are so important that they can only be adequately held by Indian Medical Service officers, who could not be spared for military duty even in a big war. The remaining civil posts contain the available medical reserve for war time; and as it is these only which could at present be filled by locally-recruited Indians, it is clear that very few such posts now held by Indian Medical Service men can, with due regard to economy and efficiency, be given up to them. The local Governments have been instructed to report what posts can be so given up, and on the answers the future recruiting of the service will depend. If the civil list of the Indian Medical Service is seriously reduced in numbers, the result will be that instead of nearly two-thirds of the service being able to look forward to the civil professional opportunities which practically all enter in the expectation of attaining within three or four years of reaching India, only a minority will be able to obtain civil work, and that only after a number of years in military employ. In such circumstances it is certain that it will not be possible to "maintain the "attractiveness of the Indian Medical Service" on which the Government of India rightly lays so much importance. Moreover, there is a natural fear that once a beginning is made in reducing the attractions of the service, as represented by the proportion of civil posts, the process will steadily advance, and, as recruits now entering have to look forward to at least thirty years' service in India to get the full pension, it will be quite impossible for them to foresee how far their prospects may be adversely affected after they have entered by the progress of the changes indicated.

It is earnestly to be hoped that the present uncertainty as to the future of this famous medical service will soon be settled in such a manner as fully to maintain its prospects and traditions; otherwise the standard of entries must inevitably rapidly fall; once the confidence of the medical schools of Great Britain in the future of the Indian Medical Service is destroyed, it will be exceedingly difficult to restore it.

FROM DEMOCRAT TO DICTATOR.

THE political growth of Mr. John Burns appears to proceed with the bewildering rapidity of a tropical plant. It is not so many years ago that he was the rising hope of the Labour, if not, indeed, of the embryonic Socialist, party; then, after a period of more or less official radicalism, we find him a Cabinet Minister, steadied but by no means silenced by the responsibilities of office; and finally, last Saturday, he presented the country with a proposal for a dictatorship. We have no wish to criticize this course of development, and, if we are to have a dictator, Mr. Burns would probably make a reasonable if masterful tyrant. In his speech at the opening of the new municipal convalescent infirmary for London children he suggested that the President of the Local Government Board should be given a general commission to carry out such reforms founded upon the recommendations of the Royal Commission on the Poor Law and Relief of Distress as might commend themselves to himself and his advisers, with, as a concession to his colleagues, the possible assistance in certain directions of the Home Office and the Board of Education. The suggestion, although very much on the lines of the historical development of democracies, is a little startling, and is not likely to be seriously entertained; we suspect, indeed, that Mr. Burns has no hope that it will be seriously entertained, and that his proposal was intended to be one of those apparent paradoxes which arrest public attention. The most significant part of his speech was the fear he expressed that the something which the Government must do will fall to the lot, not of this Government, or even of the next, but of the next but one. This is a roundabout way of saying that reform will, in the ordinary course of events, be postponed, for in all probability at least seven or eight years, and will then be contingent upon the accession to power of a political party pledged to this particular reform. Mr. Burns is an old parliamentary hand, he is no novice in party politics, and he has recently gained a first-hand knowledge of ministerial and departmental modes of procedure. We take it, therefore, that his speech is a warning to the country that unless a definite public opinion is expressed, Poor Law reform will be shelved until the findings of the Royal Commission have been forgotten, or the conditions have been materially changed. He does not want new commissions, a sentiment with which everybody will agree, nor does he wish to see the creation of new *ad hoc* bodies unacquainted with what has gone before. As to the meaning of this last opinion we must remain in some doubt, unless it can be taken to signify that Mr. Burns considers that the relief of distress should be added to the duties which already weigh upon the county councils. The question whether additional work can be placed upon the shoulders of these useful and long-suffering bodies is more serious than the Royal Commission probably recognized; we observe that Mr. Tonman Mosley, Chairman of the Bucks County Council, at the annual meeting of the County Councils Association on May 18th, in opening a discussion on the Poor Law Commission's report said that if the county was to be the unit, the county council with its existing organization would be preferable to a semi-independent public assistance authority responsible directly to no electors, insufficiently checked in its expenditure, and perhaps drawing away from county councils many valuable and hard-working members. Lord Belper, chairman of the Nottinghamshire County Council, who on this occasion was elected chairman of the County Councils Association, said that in his opinion it was impracticable for county councils as at present constituted to undertake the extra work, and eventually it was decided to appoint a committee to report upon the Poor Law Commission's report from the county councils' point of view.

SIGHT TESTING IN THE MERCANTILE MARINE.

THE case to which Mr. McArthur called attention recently by a question in the House of Commons (page 1262) affords another illustration of the unsatisfactory state of things existing at the Board of Trade when candidates are examined for colour vision. It appears that a Mr. Glover passed as second mate eighteen months ago, and has been at sea ever since. In March of this year he presented himself for examination for a first mate's certificate. He was then rejected on the ground of colour blindness by Captain Fletcher, who had passed him on the previous occasion. Mr. Glover then applied for a special test,

and the examiners in this final court of appeal were Professor William Watson, Assistant Professor of Physics at the Royal College of Science, and Captain Harvey. The court which sat to try the case consisted of the Chairman of the Local Marine Board, a stipendiary magistrate, a member of Parliament, two ship captains, and others, but no medical man was included either among the examiners or the court. According to Professor Watson, Mr. Glover made the most shocking mistakes by calling spectral green red, and by placing together as a match pink, blue, and violet wools, and these mistakes he made on several occasions, though he sometimes got them right. Captain Harvey gave corroborative evidence. So far no medical man had ever seen the candidate as regards his eyes, and not a single person who had seen him or heard the evidence had any knowledge of physiology or ophthalmology. Mr. Glover, however, decided that he would be examined by an ophthalmic surgeon, and he consequently consulted Dr. William Ettles, Pathologist to the Royal Eye Hospital, who stated that the candidate's colour vision was perfect, that the mistakes he had made were due to the abnormal length of time he was under examination by the non-medical witnesses, and that he considered him fit as regards colour vision to undertake any duties a ship's officer would be called upon to perform. After a brief deliberation the court found that he "is not incompetent by reason of colour blindness "to perform his duties, and his certificate is there-"fore returned to him." In the face of such contradictory evidence we express no opinion as to the rights or wrongs of the case, but one or two points call for consideration. Professor Watson, on cross-examination, stated that he "made a point of never "failing a man unless he made a mistake several "times." Does Professor Watson imagine that a collision at sea will not take place unless a man mistakes the colour of a light "several times"? No rule ought to be more insisted upon than one laid down by Dr. Edridge-Green—that a man who calls red green, or green red, or who mistakes a white (yellow) light for either on a single occasion should be rejected at once, for if he makes this mistake in the examination room, he is certain to do the same at sea when a light of unknown colour and intensity suddenly looms into view. No normal-sighted person would ever make a mistake even once. The evidence of Captain Harvey and Captain Fletcher may be passed over without comment, as they of course have no expert knowledge of the subject; but the evidence of Dr. Ettles that the candidate never made a mistake at all deserves respectful attention. Now it is obvious that someone's observations were wrong, and it seems strange that the crucial lantern test was not, so far as the published reports show, used by any one. The inquiry proves once more that the way in which colour vision is tested is inadequate. It would be ludicrous, if it were not so serious, to find that the British Board of Trade cannot get more competent people to examine candidates' eyesight than ships' captains backed up by a physicist, and cases like this will again and again recur until competent medical men with ophthalmic training are appointed examiners. We cannot decide from this evidence whether the man's colour vision was good or bad—perhaps it was as perfect as Dr. Ettles suggests, though if we believe a single word of the evidence of the other examiners he must be a person who has no right to be put in charge of a ship. We sympathize much with Mr. Glover, who may have perfect colour vision, as we are inclined to believe he has; if so, it is grossly unfair that he should be subject to all this inconvenience and annoyance because he is examined by men who are not trained to form an opinion on the subject upon which they are asked to pass judgement. What would the public or the Board of Trade think of a court of examiners in seamanship composed of medical men and experts in physics?

CLERICAL PROTEST AGAINST THE EMMANUEL MOVEMENT.

WE learn from the New York *Medical Record* that at a special Masonic service held in Calvary Episcopal Church, New York, on May 2nd, the anthem, which had been specially composed for the occasion, was intended as a protest not only against Christian Science but also against the doctrines and practices of what may for convenience be termed Emmanuelism. The theme of the anthem is sustained by the baritone soloist, its warnings being explained and confirmed by the chorus. The soloist begins:

> O Earth, Earth, hear the word of the Lord.
> Be thou instructed, O Jerusalem, lest my soul depart from thee.
> Shall a man make gods unto himself and they are no gods?
> I hearkened and heard, but they spake not aright.
> They are vanity and the work of errors.
> Deceive not yourselves. Ye looked for peace and no good came, and for a time of health, and behold, trouble.

Then the Chorus declares:

> The way of man is not in himself; it is not in man that walketh to direct his steps.

The soloist goes on:

> O ye priests! How long will ye sit still?
> Who is this that darkeneth counsel by words without knowledge?
> How do they say, "We are wise and the law of the Lord is with us"?
> Thus saith the Lord of hosts, Lo, these have rejected the word of the Most High, and what wisdom is in them?
> For they have healed the hurt of my people slightly, saying, "Peace, peace," when there is no peace.
>
> * * * * *
>
> In thy sickness give place to the physician, for the Lord hath created him and given him skill, that he might be honoured in His marvellous works. Let him not go from thee, for thou hast need of him.
> Of the Most High cometh healing. He hath created medicines out of the earth, and he that is wise will not abhor them.

The Chorus then explains that "Love and might no "longer heal by touch, or word, or look," and that they who do God's work must read His laws in Nature's book. The soloist makes a final appeal:

> How long halt ye between two opinions?

To which the response of the Chorus is:

> As for me and my house, we will serve the Lord.

According to the anthem, the words of which seem to us excellently well chosen for their purpose, serving the Lord in time of sickness is to turn for help to the physicians whom the Lord hath created and to be healed by the medicines which "He hath created out "of the earth," and which the wise man will not abhor. Several other protests against the Emmanuel movement and against the intrusion of the clergy into the sphere of medicine have been made in America. As the *Record* truly says, "It is a healthful and "hopeful sign that many earnest churchmen are "beginning to look askance on this sensational and "harmful meddling of clergymen with pathology."

HIBERNATION AND PSYCHOSES.

AN exceedingly original and suggestive monograph, entitled *Stoffwechselpsychosen*,[1] or the psychoses of metabolism, published some eighteen months, has

[1] *Stoffwechselpsychosen. Die Störungen des Sauerstoff-gaswechsels im Menschlichen Organismus.* By Dr. W. Ewald. Würzburg: A. Stübe (Curt Kabitzch). 1907. (Demy 8vo, pp. 59. M. 1.50.)

recently come under our notice. The author, Dr. W. Ewald, one of the medical officers of the Frankfurt State Infirmary, attempts to explain the etiology of some of the psychoses; he accepts with considerable reservation the statement that "mental diseases are diseases of the brain," maintaining that this only applies to the organic psychoses and to hereditary degenerative conditions. Acute and subacute "functional" psychoses, whether terminating in recovery or dementia, and manic-depressive insanity cannot, he considers, be considered cerebral diseases, but rather the result of general disorders of the whole body, the mental symptoms occupying the front of the stage because of the relatively great delicacy of neuro-cerebral response to injurious influences. So far Dr. Ewald is in agreement with most other writers, and also, in his opinion, as to the relative values of endogenous and exogenous toxins. Seeking, however, in the animal world for an example of a general change in the metabolism of the body associated at the same time with psychic alterations, Dr. Ewald was struck with the parallelism between the phenomena of hibernation and those of certain psychoses, notably, of course, stupor. Quoting, without criticism, Merzbacher's paradox that hibernation or winter sleep "is, in the first place, not a sleep, and in the second "place, has nothing to do with winter," Dr. Ewald gives a summary of the bodily changes found in hibernating animals, as the result of the cause of the winter sleep, which included diminished intake of oxygen, before proceeding to discuss the various possible anomalies in oxygen metabolism in man, and the results of his experiments with regard to the specific oxygen capacity, blood alkalescence, and other points. These are described in detail, but we need here only mention the main result, which is that all bodily diseases which produce alterations in the oxygen metabolism are accompanied by proportionate psychic alterations; diminution in oxygen metabolism being accompanied by retardation of mental processes and a depressive or apathetic emotional state, and increased oxygen metabolism by the opposite mental states. The examination of subjects of several forms of mental disease in the main supported conclusions arrived at previously on theoretical grounds. The specific oxygen capacity in epileptics, for example, fell, Dr. Ewald found, during stuporous states from 12.6 per cent. to 5.5 per cent. Also of six general paralytics examined, four were depressed and two euphoric and grandiose. The four depressed cases gave low or normal, and the two exalted patients very high specific oxygen capacities. Dr. Ewald has given a good deal of labour and thought to a subject which appears worthy of further study.

PUBLIC ACCOUNTANTS.

IN the characteristics of the movement now in progress in regard to accountants there is much that recalls the period immediately preceding the introduction of the Medical Act of 1857. Not so much in the proposals put forward respecting the future status of accountants as in the arguments used in favour of leaving things as they are. We have two bodies each claiming to be the rightful representative of account ancy, and numerous other bodies of recent growth claiming a recognition which their seniors are indisposed to accord to them. The older bodies have been accustomed to guard their portals by exacting from candidates the most convincing proof of professional capacity and personal trustworthiness, and they fear loss of dignity and prestige for the profession if they are called upon to merge themselves in a general institution. On the other hand, the public is confused by the number of societies which claim that their members are entitled to public confidence, and there is a strong feeling among business men in general that the time has come when everything connected with accountancy should be duly regulated in the public interest. A very large share of all the business of the country is now carried on by limited liability companies, and the safety of the shareholders greatly depends on the ability and honesty with which the auditing and certifying of accounts is carried out. Hence the importance of submitting to some kind of control those who make their living by this work. It may be added that the need of some authority with whom complaints could be lodged, or whose attention could be directed to certain facts has frequently been felt by this JOURNAL when examining the accounts of charitable institutions. It was a great many years before those immediately concerned in the administration of public charities could be induced to see that it was their duty to have their accounts audited by some independent authority, and though this reform has now been effected, another evil has arisen. Accountants sometimes give their imprimatur to financial statements which do not bear examination. It is not that they are incorrect so far as figures are concerned, or that they are dishonest accounts in the common sense of the term. Nevertheless they are dishonest because so drawn up as to mislead subscribers who are unskilled in reading accounts. We have seen accounts, for instance, duly audited and signed as correct by accountants of some standing, in which by way of making out that the institution stood badly in need of assistance a sum of several hundred pounds spent in buying Consols was passed into the accounts in such a fashion as to make it appear that the income of the hospital during the year had fallen gravely short of the cost of its upkeep. It is not honest of hospital authorities to mislead their subscribers as to the real state of their finances even if no individual is thereby a penny the richer, and such dishonesty would not be permitted by accountants if these were subject to the control of some properly-constituted authority.

RESEARCH WORK ON NERVOUS DISEASES.

IF the increase of insanity and nervous disease at the present day affords grounds for some alarm, the organized effort that is being made to discover the causes of such affections by experimental research encourages the hope that means may be found to mitigate, and in time prevent, the evil. A few weeks ago we gave a summary of the work done with this object at Claybury by Dr. Mott and his collaborators. There is a similar laboratory at Morningside, near Edinburgh, where under the able direction of Dr. Ford Robertson important researches have been carried out. The West Riding and some other asylums have pathologists. Now we have the pleasure to announce that the directors of the Crichton Royal Institution, Dumfries, have decided to establish a laboratory for research on nervous and mental diseases in connexion therewith. The laboratory is to be organized on lines laid down by the Physician-Superintendent, Dr. C. C. Easterbrook, in a special report submitted on February 17th, 1909. In a report dated October 7th, 1908, Dr. Easterbrook had previously pointed out that if the institution was to keep abreast of what we may call the scientific stream of tendency it must provide, in addition to an efficient hospital and a comfortable home for the care of patients, adequate means for the pathological investigation of their maladies. The directors, after considering this report, asked the Physician-Superintendent to submit a

scheme for the establishment and organization of such a research laboratory as he proposed. This, after obtaining the opinions of a number of scientific experts, he has done in a report to which reference has already been made. His plan for the constitution and administration of the laboratory staff is briefly as follows: Three fellowships—one in clinical neurology and psychology, one in pathology and chemistry, and one in pathology and bacteriology, should be established. Each of these fellowships should be of the value of £250 a year, with quarters, board, attendance, and laundry at the institution, or an allowance in lieu of these of £50 a year. The fellowships should be tenable for one year, but renewable from year to year. Each fellow should be given periodical opportunities, at his own expense, of perfecting his studies and training in other clinics and laboratories at home and abroad. The fellows should devote their whole time to research work, and should be under the immediate direction of the Physician-Superintendent. Each one at the end of the year should make a short abstract of his work and list of published papers during the foregoing twelve months for submission to an Advisory Medical Committee consisting of the Physician-Superintendent, the Medical Commissioners in Lunacy for Scotland, the Superintendent of the Laboratory of the Scottish Asylums, and any others whom the Committee may think it advisable to co-opt. It is suggested that the fellows should be men holding a medical degree or diploma from a university of the British Empire, or a medical qualification from a recognized licensing body in the British Islands; that they should be men of wide education, with a knowledge of modern languages; that they should have had special experience in clinical work, preferably in the form of a good hospital appointment at a teaching centre; that they should have had special laboratory training and experience in laboratory methods as applied to clinical pathology. It is suggested, further, that they should be required to supply proof, in the form of published work, of their capacity to advance medical science by original research. Further information in regard to these appointments will be found in our advertisement columns. The scheme seems to us admirable in every way, and it is well calculated to increase the great usefulness of the Crichton Royal Institution, not only to its own inmates, but by the additions to knowledge which it cannot fail to be the means of making, to all who are similarly afflicted throughout the world. We congratulate Dr. Easterbrook on the breadth of view shown in his plan, and the directors of the Crichton Royal Instituton on the large-minded zeal for humanity they have displayed in its adoption.

GLIMPSES OF MEDICINE IN THE FAR EAST.

IN the *Boston Medical and Surgical Journal* of May 6th Dr. George Cheever Shattuck gives an interesting account of a tour round the world which he made a year or two ago. He bears testimony to the fact that the hospitals in the leper colony at Molokai have been renovated and enlarged, and states that it is hoped by careful segregation to stamp out the disease. The Government is building laboratories in which experimental work is to be conducted in the hope of discovering a cure for the disease. The hospitals at Honolulu contain comparatively few cases of tropical disease, and Dr. Shattuck was told that cancer of the stomach is so uncommon in the happy islands of which it is the capital that gastro-enterostomy has only once been performed there; cancer of the breast is still more rare. Japan was next visited. At Tokio our medical Ulysses found the hospital attached to the university large and well appointed for surgery, but he judged, from the few attendants to be seen, that the patients receive little care. More interesting to him were the Imperial Institute for Infectious Diseases, the Serum Institute, and the Lymph Institute, all controlled by the Government under the general management of Professor Kitasato. Some 200 horses and cattle are kept for making serums; these are laboratories which supply vaccine and antitoxin for the entire nation; there is a special rat-proof and fly-proof building for the *Bacillus pestis;* a small hospital to which cases of infectious disease are admitted for study; and laboratories where practitioners from all parts of Japan may make themselves familiar with pathogenic bacteria and modes of prophylaxis by taking the course offered by the Government. Antitoxins for diphtheria, tetanus, erysipelas plague, cholera, and Shiga's dysentery are made in separate laboratories. Immunizing serums are prepared for small-pox, plague, cholera, and typhoid. At the time of Dr. Shattuck's visit a new antitoxin against the venom of the *habu*, a poisonous snake common in some parts of Japan, was being developed, and Professor Kitasato was experimenting with a new antitoxin for typhoid. In addition to these shrines of science, Dr. Shattuck visited the Shinto Temples dedicated to ancestor worship. In every one of these, on one side of the main hall, there sits a deity carved out of wood, with a wrinkled pot-belly and a benevolent expression. His name is Binzuri, and he heals the faithful by a sort of massage which is applied by the patient rubbing himself against the part of the body of the god corresponding to the situation of the pain in his own body. Dr. Shattuck says that from Binzuri's appearance it may be inferred that he has a large general practice, but that he specializes in headaches, joint pains, and indigestion. The votive offering is seen in Japan as elsewhere; it is common to see hanging near a shrine an array of sandals of various sizes, placed there by coolies whose sore feet have been cured by the divine power. In China the faith cure takes several forms. On the outskirts of Peking is the Temple of the famous Bronze Horse, who treats patients as does Binzuri in Japan. The horse is an archaic, stiff-legged, bronze pony of nearly life size, and he is polished all over by the sufferers. Another form of faith cure is seen at the fairs frequently held in Peking for the sale of household utensils, clothing, condiments, toys, and bric-a-brac. In a separate booth at one of these fairs Dr. Shattuck saw a doctor surrounded by an odd collection of relics, among which were some dried reptiles and the skull of a tiger. He offered for sale a black ointment compounded of the ingredients represented by the collection. At Hong Kong Dr. Shattuck visited the great Tung Wa Hospital, built by the Chinese for the poor of their race. It has two divisions, in one of which patients are treated on the Chinese system, while in the other Western methods are employed under the direction of a Chinese doctor trained in the United States. Unfortunately, no comparative figures showing the results are given. Dr. Shattuck was told, however, that patients suffering from beri-beri, which is very common at Hong Kong, often ask to be transferred to the western division in order that they may get morphine for the relief of the neuritic pains.

THE PERSISTENCY OF ANTIVIVISECTION MYTHS.

MANY things are killed by exposure; the antivivisection myth seems to flourish on it. Some correspondence which has recently appeared in the *Hull Daily Mail* affords a striking illustration of this. With the object of stirring up his fellow-citizens to attend

a meeting to protest against vivisection a Mr. Ronald Dixon cited the following example, purporting to be taken from *Vivisection: Is it Justifiable?* by the late Dr. Charles Bell Taylor: "Here is another, also "called a moral experiment, which I quote from a "speech by Dr. Shaw, delivered quite recently before "the Royal College of Surgeons of Ireland. 'The "'operator began by treating the animal kindly, and "'winning its love and confidence. When these "'were secured, he cut off an ear of the dog, "'who looked astonished, but manifested no resent-"'ment. Next day he cut off a paw, and a few "'days afterwards another. Thus he went on "'from one outrage to another, slashing and "'stabbing till the experiment was complete. "'It was astounding how much the animal endured "'before his confidence was gone, and his love turned "'to hate. After the second paw was removed, he "'continued to gaze up into his master's face, and to "'lick the hand that maimed him.'" A controversy followed, in which Mr. Dixon said, in reply to Dr. Arthur H. Fullerton, who had asked if Dr. Taylor had seen the experiment described: "If Dr. Fullerton "doubts the word and evidence of Dr. Bell Taylor "and Dr. Shaw he doubts at least one of the noted "leaders of his own profession, and reflects also to "some extent upon the Royal College of Surgeons of "Ireland, etc." This shows the antivivisectionist notion of evidence. It would be amusing if it were not so serious a thing that the public should be misled in regard to animal experimentation. For the benefit of the controversialists who, after making an inaccurate statement, hasten to take cover behind some one else, we may state that Dr. Bell Taylor was not recognized as a leader by his profession, and Dr. Shaw, on whose authority he seems to have taken the story without any independent inquiry, was not a member of the profession at all. The truth of the matter was set forth in the BRITISH MEDICAL JOURNAL of April 18th, 1908, p. 952. We need not repeat it in detail here; it need only be said that Dr. Shaw, a doctor of laws, related the experiments not before the Irish College of Surgeons, but at a meeting of the Senate of the University of Dublin, held on June 14th, 1892, with the object of preventing honorary degrees being conferred on Burdon-Sanderson, Michael Foster, Charles Richet, and L. Hermann, on the occasion of the tercentenary of the foundation of the university. Professor D. J. Cunningham, who spoke on the occasion, assured the Senate that "nothing of the kind "ever happened in a physiological laboratory in this "country." Those in attendance, according to the Dublin *Daily Express* of June 15th, 1892, numbered sixty-four; of these, twenty-four were clergymen. The honorary degrees were duly conferred, Dr. Shaw's overstatement of the case having disgusted the Senate. But this old story has become part of the stock-in-trade of the antivivisectionists, and will doubtless be heated up again and again, and served up for the delectation of those who love to sup full of such horrors. It may be added that the "moral experiment" which no physiologist would recognize as a scientific experiment in any sense, seems to have been performed in France some seventy or eighty years ago by Brachet. We have been unable to trace the report to its original source, but assuming the account given to be true, every physiologist in this country would utterly condemn such acts as wanton and useless cruelty, reflecting indelible infamy on the man who did such things in the name of science.

THE SALE OF POISONS.

THE Pharmaceutical Society of Great Britain held its annual dinner at the Holborn Restaurant on May 18th, the chair being taken by the President for the year, Mr. J. Rymer Young of Warrington. On his left he had the President of the Royal College of Surgeons, Mr. Henry Morris, and on his right Sir Dyce Duckworth, Treasurer of the Royal College of Physicians. The company was, as usual, very numerous, and included that steady Parliamentary supporter of the society, Mr. Thomas Lough; Viscount Hill, and several other representatives of the Houses of Parliament. Early in the evening came a toast to the medical profession. It was proposed by Mr. Rymer Young, who, after sketching the progress of medicine and surgery in the last 100 years, drew a well-balanced comparison between the personal sacrifices entailed on members of various professions, and then gave his vote to medical men. The response to the toast came from Sir Dyce Duckworth, who regretted that the trend of modern pharmaceutical technique had in some measure served to make the association between pharmacists and members of the medical profession less constant and intimate than formerly. His own preference was for ordinary pharmacopoeial remedies, and he regretted that among young medical men of the present day skill in the writing of prescriptions was a less common possession than it was formerly, or than it should be. The main interest of the speeches, however, lay perhaps in the references to the strenuous year's work from which the Pharmaceutical Society has just emerged, and the probable effect of an increased taxation of alcohol. Mr. Robinson, who introduced this topic, confirmed the statements that have elsewhere been made as to the serious result which increased expenditure in this direction may have on the finance of many hospitals. The new Pharmacy Act seemed to be regarded, on the whole, with satisfaction, but fear was expressed lest the Government should fail to give effect to its implied promise that the strictest supervision would be exercised over the issue of licences to sell poisonous insecticides and the like. The clause in question—introduced at the instance of the Agricultural Board—is in any case a weak feature, for there can be few farms not within easy reach of an ordinary establishment for the sale of drugs, and the facilities now offered for the purchase of poisons are clearly open to abuse. It may be argued, of course, that neither accidental nor intentional administration of poisons can be prevented by keeping their sale strictly in the hands of pharmacists, but on the other hand, it is clear that substances or liquids only obtainable on compliance with the formalities of a chemist's shop are more likely to be handled with care than those readily to be bought at any general store. As the clause originally stood the licensee would have been entitled to regard and sell as suitable for horticultural and agricultural purposes any and every drug that he pleased, and it is fortunate that the Pharmaceutical Society succeeded in getting the purview of the clause limited to arsenic and tobacco derivatives. The Act came into operation on the first of last month.

THE ROYAL SANITARY INSTITUTE.

AMONG the many claims which the Royal Sanitary Institute could make for itself, one is the possession of some quality that promotes a strong spirit of loyalty among its fellows and members. It has its foundation, perhaps, in the fact that ever since the time when it amalgamated with the committee which had formed the Parkes Museum—a collection which it has maintained and greatly extended—its work has been steady and thorough and conducted with no undue beating of drums. In any case, there is a curious similarity in the composition of its annual

gatherings; the same faces may be seen year after year, and no dinners attract a larger number of distinguished representatives of applied and theoretical science. The general note of the dinner last week was one of content at the steadily increasing recognition of the importance of sanitation, the description by Sir Alfred Keogh of the successful creation of a sanitary corps in connexion with the Territorial Army being received with special satisfaction. A further point of interest was the statement made, apparently on good authority, by Sir Francis Sharp Powell, that the Government does not intend to allow the Housing and Town Planning Bill to drop. The President of the Institute, the Duke of Northumberland, who was in the chair, dwelt, as on several previous occasions, on the inconsistency of Parliament, which imposed on local bodies a constantly increasing number of duties without putting those bodies into a position to carry them out. The main duties of local authorities—namely, provision for the care of children, the upkeep of roads, and municipal hygiene—he summed up under the term *trinodis necessitas*. He also made passing allusion to the fact that while the nation rightly or wrongly stands committed to the principle of local government, there is evidence of a tendency on the part of the central administration to endeavour to keep real control in its own hands. In the course of the evening the annual report was obtainable, and showed that the position of the Institute is entirely satisfactory. Its new premises in Buckingham Palace Road are nearly ready, and only £2,000 remains to be collected for their equipment. A plan which we have seen shows that the accommodation provided in the new building is greatly superior to that of the Institute's old home in Margaret Street. The growth in the number of fellows and members has been steady, and examinations for the various certificates of the Institute were held during last year at as many as eighteen centres in the United Kingdom, and at seven in the Colonies. Some of the figures supplied with regard to the examinations are of interest. Since they were first instituted in 1877 some 14,882 candidates have sat for examination, but of this number only 7,720 have been successful in obtaining certificates. This represents an examination mortality of 49 per cent. Clearly, therefore, the certificates granted by the Institute must represent real knowledge.

THE new Institute of Physiology at University College, London, will be formally opened on Friday, June 18th, by the Right Hon. R. B. Haldane, Secretary of State for War. The funds for the building of the institute were provided by the liberality of Mr. Ludwig Mond and Dr. Aders Plimmer and by a bequest of the late Mr. Thomas Webb.

Medical Notes in Parliament.

[FROM OUR LOBBY CORRESPONDENT.]

The Budget.—A statement showing the estimated yield in the years 1909–10 and 1910–11, and ultimately of the new and increased taxation proposed by the Chancellor of the Exchequer in his Budget speech on April 29th, has been issued. It is estimated that the duty of 3d. a gallon on motor spirit will yield this year £340,000, and next year and subsequently £375,000; the increase on motor car licences is put down at £260,000. The increase in the rate of the income tax from 1s. to 1s. 2d. —except in respect of earned incomes between £2,000 and £3,000—is estimated to yield £3,600,000 this year, less £600,000 representing the abatement of £10 for each child under 16 in respect of incomes up to £500. The supertax on incomes over £5,000, which is 6d. in the £ upon the amount in excess of £3,000, is expected to yield half a million this year, two and a quarter millions next year, and ultimately two and a half millions, making, with the abolition of exemptions and abatements as regards non-residents in the United Kingdom, £6,720,000 (ultimately).

The Budget and the Cost of Medicines.—Mr. Robert Harcourt called the attention of the Chancellor of the Exchequer to the minimum advance of 10 per cent. in the price of spirits used by chemists, and whether he would consider possible concessions. Mr. Lloyd George replied that he was aware that the increase in duty was likely to enhance the cost of spirits to chemists, and he had undertaken to consider the point; but there were serious difficulties in the way of allowing a special rebate of duty in their case. Mr. Harcourt returned to the subject on Monday last, and by a series of questions elicited from the Chancellor of the Exchequer that he had received some representations on the subject, including one from the Pharmaceutical Society of Great Britain. With regard to the difficulties in the way of granting a rebate, Mr. Lloyd George said that it would be difficult to provide an effective check which would ensure that the spirit was used only for strictly chemical purposes and to prevent frauds which might involve serious loss to the Revenue. As at present advised, he was doubtful whether it would be possible to devise means for surmounting these difficulties.

Medical Officers (Scotland).—Mr. Cathcart Wason asked the Lord Advocate on Monday if he was aware that in certain instances the medical profession had been warned against accepting certain appointments, owing to the treatment which had been received by the outgoing medical officers; and if any protection in such cases had been taken to safeguard the interests of the poor. Mr. Ure said that he was aware that circulars had from time to time been issued by a medical association warning members of the medical profession against accepting certain appointments. In regard to the second part of the question, he had to refer to the answer given on April 29th. Mr. Cathcart Wason then asked the Lord Advocate if he would state the number of parishes in the Highlands and Islands that had from time to time, for longer or shorter intervals, been without any medical attendance for the poor, owing to the parish council medical officer having been dismissed from or resigned his appointment. Mr. Ure replied that he was not aware of any instance in which a parish had been without medical attendance to the poor under the circumstances described. When a vacancy occurred temporary arrangements were made to provide such attendance until the appointment of a medical officer was made.

Medical Inspection of Boarded-out Children.—Mr. Walter Roch having called attention by a question to the statement made in the Minority Report of the Royal Commission on the Poor Law that the children boarded out beyond the union were not as a rule medically inspected, Mr. Burns said that he had seen the statement. Provision was made in the agreements between boards of guardians and boarding-out committees for arrangements being made with a medical man for attendance in cases of sickness, and with a dentist for the care of the children's teeth. The foster parent undertook in the case of the illness of a child boarded out with him to report the matter to the committee, the home was visited once in six weeks by a member of the committee, and a report was sent to the guardians at least once a quarter on the apparent bodily condition of the child. There was no special provision requiring the children to be periodically inspected by a medical man, though this was done in a good many instances, but as they attended the public elementary schools they were subject to the same medical inspection as other children attending these schools.

The Milk Bill.—In answer to Mr. Stanier, Mr. Burns said last week that he could not fix a date for the introduction of the Milk Bill, but that he should introduce it as soon as he could. Mr. P. Snowden then asked if the right hon. gentleman was aware that more than twelve months ago

certain clauses dealing with milk in a number of municipal bills were withdrawn on the distinct understanding that the Milk Bill would be introduced last session, and that the right hon. gentleman had given previous answers similar to the one he had just given; and whether, in view of the importance of the matter, he would give a definite undertaking that the bill would be introduced at an early date. Mr. Burns said he was aware of the facts. The delay was due to the hope which the Local Government Board and the Board of Agriculture had that they might, by means other than a bill, be able to remove three-fourths of the objections that would be raised in the discussion of the Milk Bill—by an Order of the Board of Agriculture.

Vaccination Officers.—Mr. Cave asked the President of the Local Government Board whether he had ascertained what effect the Vaccination Act, 1907, and the Vaccination Order, 1907, had upon the incomes of vaccination officers; whether he was aware that certain boards of guardians had refused to entertain an application from their vaccination officers that the board should apply to the Local Government Board for permission to pay a gratuity to the officers in order to recoup them for their loss of income arising from the operation of the Vaccination Act, 1907, and the Vaccination Order, 1907; and, if so, what action he proposed to take in the matter. Mr. Burns said that he had received representations with regard to the effect of the Act of 1907 upon the incomes of vaccination officers. The matter did not appear to be one for any general action; but in some instances the guardians had, with the consent of the Local Government Board, made additional payments to the officers affected, and in some others, where complaint had been made to the Board, they had communicated with the guardians, and had made such suggestions as in the circumstances seemed to be desirable.

The Vaccination Acts.—Mr. John Robertson asked the President of the Local Government Board on Monday whether he was aware that the vaccination officer for New Cleethorpes had served Mr. W. Truman with a notice of default, threatening him with prosecution under the Vaccination Acts unless he consented to the vaccination of his son, a boy of 12 years of age; whether the unvaccinated condition of the child was discovered through the medical inspection at the school; and whether steps would be taken to prevent vaccination officers prosecuting parents of unvaccinated children in cases where such parents had not had the opportunity of making a statutory declaration of conscientious objection to vaccination. Mr. John Burns replied that a notice did not appear to have been served upon Mr. Truman, but he understood there was another case in which the vaccination officer, finding that a boy of 12 had not been vaccinated, served the parent with a notice, and perhaps this was the case referred to. The fact that the boy had not been vaccinated was discovered from the records in the possession of the vaccination officer, and not through any medical inspection at the school. It was open to the parent within a limited time after the passing of the Vaccination Act, 1898, to apply for a certificate of conscientious objection if he believed that vaccination would be prejudicial to the health of the boy. He could not interfere with the operation of the law, which made the parent liable to proceedings if he did not obtain such a certificate.

Malarial Fever Researches.—Last week Mr. Ramsay Macdonald asked the Under Secretary for the Colonies whether he had reports on the steps taken for the suppression of malarial fever by the sanitary authorities in the Bahamas, Barbados, Jamaica, and St. Kitts-Nevis; whether these reports showed that nothing of any consequence had been done in this direction by those authorities; whether the reports had been submitted to either of the schools of tropical medicine in this country, and with what result? Colonel Seely said that the report of the Advisory Committee for the Tropical Diseases Research Fund for the year 1907 (Cd. 3,992), at pp. 29, 30, 31 and 32, showed, he regretted to say, that nothing of any consequence had been done in the direction indicated at that time. The reports in question had, with the rest of the matter contained in the Blue Book, been brought to the notice of the schools of tropical medicine, but action to be effective must needs be taken by the Governments concerned, with the co-operation of the general community. Asked further as to the steps that had been taken to secure co-operation, Colonel Seely said the Colonial Office would do all it could, and he would be glad to answer further questions on the subject. It was the fact that in small colonies the people did not take the same view as the Colonial Office did of these matters. Therefore, it was difficult to get those measures carried out, however beneficent they were.

Sight Tests (Mercantile Marine).—Mr. McArthur asked the President of the Board of Trade a question calling attention to the case of a second mate who, after being twice rejected as colour blind, was, after an investigation by the London Local Marine Board, granted a certificate. Having regard to the fact that in the three years ending 1907 out of 51 persons rejected on the ground of colour blindness 20 successfully appealed, he asked whether the Board of Trade would consider the whole subject of sight tests as affecting the mercantile marine? Mr. Churchill replied that his attention had been called to this case, and he was aware of the facts as stated in the question. It was open to any candidate who failed in the colour vision tests in the Mercantile Marine to appeal to the Board of Trade, who remitted the case to special examiners for final decision. The tests were based on the recommendations of a Committee of the Royal Society in 1892, and the special examinations were conducted with the assistance of eminent scientific experts in colour vision. The whole subject of the sight tests and the method of conducting them was under consideration.

Medical Service (India).—Mr. Kettle asked the Under Secretary of State for India whether the higher grades of the medical service of the native states of India were generally filled by Indians, to the satisfaction of the Government and the public; whether less than 10 per cent. of such positions in British India were held by Indians; and whether he was aware that the exclusion of native Indians from these well-salaried posts was regarded in India as part of the settled policy of the Indian Government. Mr. Hobhouse replied that the Secretary of State had no detailed information on the first point, but he had no reason to doubt that the answer was in the affirmative. As regards the proportion of Indians in the Indian Medical Service, that service was recruited by competitive examination, and was freely open to natives of India. It was further the policy of Government to encourage the growth of an independent medical profession in India, and to throw open to the profession in general some of the appointments now held by members of the Indian Medical Service. The Secretary of State proposed shortly to present to Parliament papers on this subject.

Sanitary Services in India.—Sir William Bull asked on Monday if the scheme proposed for the improvement of the sanitary services in India and the development of existing establishments was completed, and what special provisions were made therein to offer a career to educated natives. Mr. Hobhouse, replying for the India Office, said that the scheme had not yet been completed. The Secretary of State attached great importance to the inclusion in any such scheme of special provisions of the kind to which the hon. member referred.

The Egyptian Department of Public Health.—Mr. Ramsay Macdonald asked last week if Mr. H. C. Ross had to leave the Egyptian Sanitary Service in consequence of his zeal for stamping out malaria, and Mr. McKinnon Wood replied that Mr. H. C. Ross was never in the permanent employment of the Egyptian Department of Public Health. He resigned his temporary post under that Department when he learned that the Director-General was not prepared to promise him a permanent post in the Inspectorate in Cairo.

The Whitsuntide Recess.—Till the House of Commons rises on Thursday, May 27th, the Budget resolutions will occupy most of its time. The Finance Bill is expected to be introduced on the 26th. The holidays will be short, and the House, as at present arranged, will resume its sittings on Thursday, June 3rd.

England and Wales.

[FROM OUR SPECIAL CORRESPONDENTS.]

MANCHESTER AND DISTRICT.

THE MIDWIVES SUPERVISING COMMITTEE.

THE Manchester Midwives Supervising Committee has just issued for the guidance of monthly nurses a small pamphlet containing some valuable hints and instructions on the care of women in childbirth. Special stress is laid on the supreme importance of cleanliness on the part of the nurse and the necessity for disinfection of the hands and nails, instructions for this being given. Women suffering from sore throats or discharging sores of any kind are forbidden to attend lying-in patients, while if they have been attending cases of puerperal fever they are instructed not to attend another case without thorough disinfection, which will be done free of cost by the corporation, and are advised to consult the medical officer of health as to the precautions to be taken. They are further advised as to the arrangement of the lying-in room, the giving of an enema, the washing and disinfection of the patient, and other preparations before the arrival of the doctor. They are forbidden to make internal examinations or, except under the doctor's orders, to give stimulants or to use a douche. The after-care of the mother and infant is described in detail in a simple but thorough way, and some useful practical hints are given as to what the nurse can do if the child is born before the doctor's arrival. The whole pamphlet has evidently been prepared by a practical man; it deprecates all unnecessary interference by nurses, and is well worth attention even by fully-trained nurses.

The advice that all who act as monthly nurses should be trained and qualified opens up a subject that before long will need to be more fully considered by all midwives supervising committees, for the question arises, Ought not some training to be compulsory before any woman is allowed systematically and as a business to act as a monthly nurse? There are not wanting signs that before long there may be some reaction from the present tendency among the working classes to have a midwife instead of a doctor for confinement. Women with young families and no domestic help often find it necessary, whether they have a doctor or a midwife at their confinement, to engage some person who can act as nurse for themselves and their family, and to do the cooking and general housework. In addition, the cost of the training of midwives, what they regard as the severity of their examinations, and the strict control exercised over them, together with the fact that the bona-fide midwives are gradually lessening in number, have tended to raise the fees of certified midwives. At the same time, there is some fear that the practice is growing of doctors simply attending at the time of labour for a reduced fee and only making one or two visits afterwards, or in some cases actually never visiting at all after labour is over, but leaving the after-care of mother and infant to the totally untrained nurse. In such cases it makes very little difference in cost to the patient whether a doctor or a midwife is engaged for the labour, as some additional domestic help is in either case needed, and for the sake of cheapness takes the form of an untrained nurse who will do everything required in the way of nursing and housework for a much less charge than is made by a trained nurse. Now the opportunities which such women have of doing irretrievable harm are unbounded. As showing the dangers that may result it may be noted that, according to observations made at Monsall Hospital, the incubation period of puerperal fever is not over forty-eight hours, and out of 28 cases of puerperal fever treated at the hospital where a doctor had attended at the confinement, in 8 there were no symptoms of fever for from seventy-two to ninety-six hours after labour, while in 5 cases the latent period was over five days. Similar statistics are given for midwives' cases, all showing that Dr. Gordon is probably correct in saying that "in the bulk of cases the infection is not determined by anything that takes place at delivery," and "it is not possible to exclude the female attendant as the source of infection" one or several days after labour, so that, though asepsis during labour is of course of fundamental importance, there is some fear that the preservation of asepsis by the female attendant subsequently is often neglected. It is here that the untrained monthly nurse may do so much damage. She is absolutely free from any control under the Midwives Act so long as she does not undertake the management of labour itself. The hints now given by the Supervising Committee she may either regard or disregard as she thinks fit. She may defy the inspector of midwives; and if the scope of her employment is widened, as there is fear it may be through the possible shortage of midwives, it becomes a serious question whether the power of supervision by the Midwives Supervising Committee ought not to be extended, for, as things are now, the advice of the committee that all persons who act as monthly nurses ought to be trained and qualified is merely the expression of opinion which has no binding force. The British Medical Association has resolutely set its face against lowering the standard of training of midwives, and rightly so, as they often have the lives of patients in their hands. It would be disastrous to allow an inferior order of midwives to exist who could take the sole responsibility of labour, but there does seem to be some reason for legally regulating the training and controlling the practice of monthly nurses, who, while not being allowed to attend labours except in company with a doctor, have yet great opportunities of doing harm after labour is over.

THE MANCHESTER AND SALFORD PROVIDENT DISPENSARIES.

A few figures taken from the annual report of the Manchester and Salford Provident Dispensaries Association for 1908 will perhaps be of service to those places that may think of starting a provident dispensary. The association has 15,348 members, a decrease of 328 on the year; the new members numbered 2,415, but there were 2,743 withdrawals. The members pay 1d. a week, and the subscription for all children under 14 years of age in any family must not exceed 2d. a week. There is an entrance fee of 6d. for each individual or 1s. for a family, and 1d. is paid for each prescription received. The remuneration of the medical officers consists of one-half of the "ordinary members' fund," and is divided according to the number of patients that each medical officer has had during the year, members being at liberty to choose their own doctor from the staff. Payments made by members for cards, medicines, cod-liver oil, or bottles are not reckoned part of the "ordinary members' fund." The balance of members' payments and other receipts go towards the expenses of management, and if any sum be left after defraying expenses, at least two-thirds of it is distributed among the medical officers.

During the year 130,620 prescriptions were dispensed, being an average of 8.5 per paying member. The expenditure on drugs, bottles, corks, and dispensing was £1,114, so that each prescription cost about 2d., but as this includes the cost of dispensing, the actual cost of the materials of each prescription was below 2d. The total sum paid to the medical officers was £1,794 15s. 3d., and as there are 15,348 members, the amount paid to the medical officers works out at about 2s. 4d. a member a year, or slightly over ½d. a week. At Pendleton, which is the largest branch, the medical officers received £498 for attending to 3,298 patients. This branch is the best for the medical men, as they receive 3s. a member a year. For this amount there were 7,141 consultations at the dispensary and 7,057 home visits, which is rather under 8½d. for each visit or consultation. About 27,000 prescriptions were dispensed, and the cost of the drugs, bottles, corks, and dispensing was £195, which is under 1¾d. for each prescription. At the Lower Broughton dispensary the medical officers received £108 for 1,028 patients, which is about 2s. 1d. a member a year. There were 2,486 consultations and 1,630 home visits, which is about 6½d. for each visit or consultation. There were 6,440 prescriptions dispensed at a cost of £70, which is about 2½d. each. At the Hulme Dispensary, which is the second largest, the medical officers received £326 for 2,963 members, which is 2s. 2½d. a member a year. Here the average number of prescriptions during the year for each paying member was 10.3—that is 30,640 in all, costing £216, or not quite 1¾d. for each prescription.

It should be noted that the payments to the medical officers as given above are clear. But though prescriptions

are provided by the dispensaries at a charge of 1d. each, the actual cost of each prescription is from 1¾d. to 2¼d. Thus the excess cost is a deduction from what the medical officers would otherwise receive, or in other words, the medical officers are mulcted to the extent of about half the cost of each prescription. Again, in certain circumstances for special visits out of hours the doctors are allowed to charge 1s., but this can only rarely be enforced. Female members may be attended in their confinements for 15s., paid in advance if desired by instalments. As this is distinctly below the usual fee of the district, it offers some inducement to female members to have the dispensary doctor for their confinements.

The cost of management of the dispensaries is distinctly high. Their total income, including payments for prescriptions, and not reckoning £42 balance due to treasurer, was £4,069; and out of this only £1,794 went to the medical officers, while £1,114 was expended on drugs, cod-liver oil, bottles, corks, and dispensing, £516 for collectors, £336 for rent, rates, and taxes, £43 for printing, advertising, and stationery, and the remainder went in sundry expenses. Thus the medical men received considerably under one-half of the total income. But even this hardly represents the true financial position of the dispensaries, for it is found that the association as a whole has received since 1893 about £1,261 in legacies and donations; the council has made grants of £6,448 to the various dispensaries since 1875, and has only received in return from the dispensaries £1,578 in the same time.

On the whole, as a pure charity, something may be said for the dispensaries, but that almost completely exhausts their recommendations to medical men.

LONDON.

The French Hospital.

The forty-first annual banquet of the French Hospital was held at the Hotel Cecil on May 15th. His Excellency the French Ambassador, M. Paul Cambon, presided, and was supported by the Spanish Ambassador and many other members of the Corps Diplomatique. The Lord Mayor and Sheriffs were also present, and about 300 subscribers. In proposing the toast of the evening the French Ambassador announced that the very large sum of £4,820 had been collected, and eulogized the untiring energy of the stewards. He congratulated M. Pondepeyre, the Secretary of the Hospital, on his skilful management of the funds during the past year; the weekly expenditure on in-patients—apart from out-patients—was less than in any other hospital in London. He announced that an extension of the building was required, which would cost £4,000. The toast of the "Corps Médical" was responded to by Mr. Edmund Owen in felicitous terms, and to demonstrate how well the patients were fed he invited any gentlemen present to come to lunch at the hospital, provided they did not all select the same day. On being asked by the French Ambassador to speak, Dr. Ogilvie said:—J'ai toujours suivi le principe du pauvre Coquelin, qui disait: "Je n'entreprends jamais un rôle avant de l'avoir étudié à fond." Ce soir je me trouve dans l'obligation de manquer à ce principe; car, un simple désir de son Excellence est un ordre pour moi, et bien que n'ayant pas étudié mon rôle, je vais tâcher de balbutier quelques paroles. Je me sens ce soir comme un métaphysicien écossais — Savez-vous, Messieurs, ce que c'est qu'un métaphysicien écossais? C'est un aveugle, cherchant à tâtons, dans une chambre obscure, un chat noir, qui ne s'y trouve pas. Mon crâne c'est la chambre obscure, et mes idées le chat noir. En effet, Messieurs, mes pensées s'en sont allées, comme à l'automne les feuilles jaunes tombent du chêne; elles s'en sont allées dans l'azur léger, et comme un songe éphémère, elles n'ont laissé derrière elles—aucune trace. Me trouvant dans une telle condition, ce que j'ai de mieux à faire, c'est de m'asseoir, et de me taire. Avant cela cependant, permettez-moi de vous donner mon opinion sur les devoirs d'un médecin. Son premier devoir c'est de prévenir le mal; s'il n'y réussit pas—de le guérir; et s'il n'y réussit pas non plus—de soulager la souffrance et de prolonger la vie. Je finirai, Messieurs, en répétant les mots, non d'un métaphysicien écossais, mais d'un grand mathématicien français—Descartes—"S'il est possible de perfectionner l'espèce humaine, c'est dans la médecine qu'il faut en chercher les moyens."

In replying to the toast of his health, proposed by the Lord Mayor, M. Cambon said diplomacy did not consist in making fine phrases, but in clear and frank statements.

A Municipal Infirmary for Children.

On May 17th a building erected by the Metropolitan Asylums Board at Carshalton, originally intended for use as a convalescent fever hospital, was opened as a children's infirmary by the President of the Local Government Board. The site of the infirmary, which commands charming views of the surrounding country, consists of about 130 acres. It is anticipated that the building will accommodate at least 1,000 sick and convalescent children drawn from the workhouses and infirmaries of the metropolis. Motor ambulances have been provided for patients who cannot travel by train, and it is hoped that the institution will be used for the most part for cases requiring hospital treatment and continuous nursing.

Mr. Burns, who at the beginning of his speech was interrupted by Suffragettes, whom he described as "female hooligans," said that the condition of Poor Law children had been greatly improved during the last forty years, and the opening of the infirmary constituted a new departure in their interests. The work of such authorities as the Metropolitan Asylums Board should be judged less by the results seen at present than by the evils they had prevented and were preventing. After insisting upon the fundamental importance of the maintenance of a due sense of parental responsibility, Mr. Burns discussed the report of the Royal Commission on the Poor Laws in his most characteristic vein; he claimed that while the Commission was sitting the Local Government Board had been acting wisely on lines of which both the minority and majority of that Commission approved. The Government of the country must do something to carry out the recommendations of the report, but whether it would be this Government or the next Government, or, as he thought more probable, the next but one, which would take action it was difficult to foresee. If Parliament knew its business it would remit the report and the whole problem of Poor Law reform to the President of the Local Government Board to take such action as seemed to him necessary, to report to Parliament every three months what had been done, and when its approval had been obtained the President should have power by regulations and orders to take action at once. If the Local Government Board was not considered capable of dealing with the whole question, the aid of the Home Office might be invoked in dealing with vagrancy and the criminal aspects of the Poor Law, and that of the Board of Education in dealing with children. He did not think that more commissions or *ad hoc* authorities possessing no knowledge of what had gone before should be imported. The State and municipality must concentrate on removing from the next generation the heritage of evils which this generation had received. To care for epileptics, imbeciles, and the feeble-minded was heroic but thoughtless charity; to avoid their creation would relieve the victim of a life of misery and the community of a perpetual burden. The child was the growing man, pliable to good influences, but susceptible to the vicious, amenable to all that made for culture, health, and strength, but, owing to its innocence, very liable to suffer from degrading influences.

Treatment of School Children.

At the meeting of the Education Committee of the London County Council on May 19th the Special Committee which is obtaining estimates of the cost of medical treatment of school children reported that it proposed to obtain information only in regard to eyes, ears, and skin diseases, and to postpone inquiries as to teeth.

Mr. Graham Wallas moved to refer the report back on the ground that it would be more satisfactory if the inquiries were complete, and he hoped in the end that the Council would decide to treat teeth.

Miss Lawrence replied that the special committee were dealing with the easiest part of the problem first. It had fairly definite information as to the number of children whose eyes, ears, and skin were affected; but estimates differed widely as to the extent of bad dentition. Public opinion was not sufficiently advanced on the question to warrant the Council undertaking the treatment of teeth.

The Rev. Stewart Headlam suggested, on the authority of a dental hospital, that the treatment of teeth should be limited to children aged between 6 and 8 years, which was a critical time if the teeth were to be preserved.

The amendment, however, was lost, and the report of the special committee was received.

WALES.

Hygiene in the Monmouthshire Coal and Iron Districts.

In his quarterly report to the Sanitary Committee the county medical officer of Monmouthshire deals with the Tredegar and Mynyddislwyn Urban Districts. It is stated that during the seventeenth and the early part of the eighteenth centuries the Tredegar district was studded with farms, the main industry being agriculture. Mining operations commenced in the middle of the eighteenth century, and marked the beginning of the destruction of the natural beauties of the locality, which to-day are replaced by townships and iron and coal refuse. Quoting from the annual report of Dr. G. A. Brown (for 1908) it is stated that the birth-rate was 39.85 and the death-rate 18.15. The birth-rate was the highest since 1903, and slightly above the average for the past ten years, while the death-rate (18.15) was well below the average of the past ten years (19.71). The infantile mortality was considerably below the average of the past ten years, and compares not unfavourably with the average infantile death-rate of England and Wales. In recent years building operations have been mainly directed to the improvement of insanitary houses and the erection of good class workmen's houses, but notwithstanding this private enterprise does not seem to cope satisfactorily with the increased demand for houses, with the result that there is a scarcity of dwelling houses and overcrowding is becoming prevalent. In November, 1908, the sanitary inspector reported that within the Council's area there were 82 cellar dwellings occupied by about 350 persons, but since then the cellar dwellings at River-Row have, as already stated, been converted into houses of a satisfactory type, while a few of the other cellar dwellings have also received attention. Much yet remains to be done with respect to the remaining houses of this type and to back-to-back houses. After referring to the system of refuse disposal, Dr. Rocyn Jones states that the urban council recently erected a Horsfall refuse destructor at Cwmrhos, which from its inauguration has been quite a success, and he suggests that neighbouring councils who have the evergreen problem of refuse disposal before them would do well to visit the installation. The present system of conveying sewage by sewers direct to the Sirhowy river, rendering the river during the summer months particularly offensive, as well as the pail system, will be remedied when the Sirhowy branch of the Western Valley's main trunk sewer is completed and the subsidiary sewers of the district connected with it. He recommends the urban council to consider the following matters: The conversion of all cellar dwellings, with dwellings immediately above them, into separate through houses; the provision of better and more extended facilities for the isolation of infectious diseases; the closure of the cowshed at the isolation hospital; and the provision of a proper disinfecting apparatus. Dealing with the Mynyddislwyn urban area, Dr. Rocyn Jones says that the urban district, being of recent creation and rapidly growing, falls much below the standard of ideal sanitary conditions, and makes a number of recommendations.

Swansea Hospital.

On May 12th the board of management of the Swansea Hospital had before it a scheme for additions to the institution to cost £141,000. It was pointed out that the administrative and other departments were by no means satisfactory, being only adequate as regards accommodation but considerably out of date in equipment. The utilization of a small ward to provide 8 beds and the provision of accommodation for 50 extra beds in future was advised. It was recommended that a second floor with balconies should be built over the two existing large wards; and it was stated that the electrotherapeutic room was too small, that the accommodation for the staff was inadequate, and that the several quarters required rearrangement. The building of a small nurses' home was advised. The report will be considered in due course.

The Ebbw Vale Dispute.

We take the following from the *Western Mail* of May 15th:

A meeting of the Cwm and Waunllwyd Section of the Ebbw Vale Workmen's Doctor's Fund was held at Cwm, Mr. F. Griffiths presiding. Mr. Mills, general manager of the Ebbw Vale Works, wrote: We do not intend to defend any further action in this matter, and if you will instruct your solicitors to send us an account properly set forth of your demands, we shall give it our immediate and careful attention. On the subject of splitting up the old doctor's fund into sections, this is a matter entirely for the workmen themselves. In the meantime we propose to deduct the pence in accordance with the old plan, and shall retain the moneys in the hope that, before a payment is due, some arrangement or settlement shall have been arrived at. It was decided to instruct the committee to form a separate fund for the Cwm district, Mr. Mills to be approached with a view to the contribution being stopped at the Ebbw Vale Company's offices.

Scotland.

[From our Special Correspondents.]

Aberdeen Royal Infirmary.

Resignation of Dr. Angus Fraser.

At a meeting of the directors of the Aberdeen Royal Infirmary, held on May 12th, a letter was submitted from Dr. Angus Fraser, Senior Physician to the Infirmary, intimating his resignation of that post. The board resolved to record their high appreciation of the invaluable service rendered by Dr. Fraser to the hospital, and through it to the sick poor of the city of Aberdeen and large surrounding district during the long period of thirty-eight years in which he had occupied the position of a physician on the staff of the infirmary; their sense of the very high honour it had been to the infirmary to have had for so long on the roll of its officials the name of one so distinguished in his profession; and their grateful recognition of the many and varied ways in which Dr. Fraser had by his sagacious counsel and his unsurpassed knowledge of the history and working of the institution contributed to its welfare and success. It was resolved to request Dr. Fraser's permission to continue his name on the staff of the infirmary as a consulting physician, and the clerk was instructed to send to Dr. Fraser an extract of the minute.

The above announcement will be of interest to Aberdeen graduates in all parts of the world, hundreds of whom have passed through Dr. Fraser's hands in the classes of clinical medicine, and the passing from active duty at the hospital of such a well-known and popular figure will occasion feelings of regret, for one can hardly imagine the infirmary without his keen face and energetic personality in the foreground. The good wishes and grateful appreciation of a multitude will go with him in his retirement, and all will hope he may have health to enjoy the leisure he has so richly earned.

Principalship of Aberdeen University.

Much interest is being taken in the selection of a successor to the Rev. Dr. Marshall Lang as Principal of Aberdeen University, and several names are freely mentioned in connexion with the vacant position. Amongst others are Professor Sir W. Mitchell Ramsay, the distinguished archaeologist, Professor of Humanity in the university; Professor Baillie, Professor of Moral Philosophy; and Professor George Adam Smith of Glasgow. Special prominence has, however, recently been given to the name of Professor Matthew Hay, who, as is well known, has for a long time taken a leading part in the business of the University Court and in the conduct of university affairs generally. There is reason to believe that the appointment of Professor Hay would meet with the emphatic concurrence of his colleagues in the university, as it would also be warmly approved by the citizens at large. The appointment is in the hands of the Secretary of State for Scotland.

Effect of the Increased Duty on Spirits on Hospitals.

A meeting of the Dundee and District Pharmaceutical Association was held last week, when the question of the increased duty on alcohol was discussed. A motion was adopted calling the attention of Mr. Lloyd George to the injustice done to infirmaries and hospitals by the increased tax on alcohol, and expressing the desire that such institutions should be exempted because of the increased expenditure that would result. It was stated that in the case of the Royal Infirmary, Dundee, the increased annual expenditure arising out of the additional duty on alcohol would be £160 to £180, Edinburgh Royal Infirmary and Sick Children's Hospital between £500 and £600, the Glasgow Infirmaries between £800 and £900, and Aberdeen Royal Infirmary about £160.

Cerebro-spinal Meningitis in Scotland.

The Registrar-General for Scotland reports that during the month of April, in eight of the principal towns of Scotland, 8 deaths were from cerebro-spinal meningitis. This was 4 fewer than in March, and 20 fewer than in April of last year; of these, 4 were registered in Glasgow, and 1 each in Edinburgh, Aberdeen, Paisley, and Perth.

Proposed Small-pox Hospital for Edinburgh.

A subcommittee of the Public Health Committee of Edinburgh Town Council considered, on May 17th, a communication from the Local Government Board regarding the erection of a small-pox hospital in some isolated part near the city. It was agreed to request that representatives of the Board should meet with the committee to discuss the matter.

Mental Patients of the Edinburgh Royal Infirmary.

At a meeting of the Edinburgh Parish Council held on May 17th an important recommendation was agreed to with reference to the treatment of cases of temporary mental disorder in the Royal Infirmary, and to the application from the managers of that institution for a contribution to the funds of the Infirmary under the Poor Law Act of 1845. The subcommittee of the parish council reported (1) that in its opinion the poor of the parish receive benefit from treatment in the Infirmary or as out-patients to such an extent as would warrant favourable consideration by the parish council of the application from the directors of the Royal Infirmary for a contribution; (2) that a contribution of £150 be made by the council to the Infirmary during the financial year of the council ending May, 1910; and (3) as regards cases of temporary mental disorder considered by the examining medical officer as suitable for treatment and observation in the Infirmary, and sent there at the instance of the Inspector of Poor, the council should agree meantime to pay the Infirmary authorities at the rate of 3s. 6d. a day for each case, the matter to be reconsidered when statistics as to the number of cases sent for treatment during a year became available.

Ireland.

[From our Special Correspondents.]

Tuberculosis Homes at Health Resorts.

Exception has been taken by the residents of Howth, Sutton, and Baldoyle, near Dublin, to the recent proposal of the Women's National Health Society in Ireland to open the coastguard station at Sutton as a "health home" for persons in the early stages of consumption.

On May 17th a deputation, consisting of many of the leading residents, was received by Lady Aberdeen, the president of the association.

Mr. Andrew Jameson said that the scheme, if carried out, would be most injurious to Sutton as a summer resort, would depreciate all sorts of property, and deprive owners of the opportunity of letting their houses. A great many holiday makers and an immense number of children spent the summer in Howth. If consumptive patients occupied the coastguard station it would be a really serious source of danger. Professor O'Sullivan had said he hardly believed that any one who regarded tuberculosis as an infectious disease would consider the site as suitable for a tuberculosis sanatorium, and thought the residents should protest as strongly as possible against a proposal so dangerous. Dr. Earl wrote that he would have less objection to a small-pox hospital near his residence than to a sanatorium for tuberculous diseases.

Lady Aberdeen, in replying, said the association had many purposes to which it wished to apply the various stations. In the first place, they would be called health homes, and she thought that that name would better explain the objects. The very last thing that would be done would be to start any institution that would be deleterious to the health of the residents in any district. The homes in many cases would be only for preventive cases and for persons who were run down and needed rest and good air. A pamphlet had been issued in the United States which showed that an inquiry had been addressed to 77 of the largest sanatoriums, and in 58 per cent. the value of the land had increased, in 35 per cent. there was no change, and in 7 per cent. a more or less marked depreciation. It was quite clear that where a wise policy was adopted a district sanatorium might benefit the community. What the association proposed to do would be of no danger at all to the residents. She wished that the result of the conference would be to dispel panic.

The President of the Royal College of Physicians and the President of the Royal College of Surgeons expressed the view that no risk would be run from the opening of the health homes.

Dr. Aherne, Father Colohan, P.P., approved the proposal.

Lady Aberdeen asked if the deputation would accept an assurance that no cases would be sent there for the present except preventive cases.

Mr. Jameson asked if they could have a guarantee in writing, and Lady Aberdeen then drafted the following statement:

> We undertake that for the present no cases will be sent to Sutton suffering from pulmonary tuberculosis, and that the health home will be used only for preventive cases, which have been duly examined and pronounced non-infective by a competent medical authority.

Mr. Jameson, on behalf of the deputation, said they could not accept that guarantee with the words "at present" included.

The deputation then withdrew.

We cannot but regret that this difference of view has arisen, but it is only to be expected that persons with rights should try to preserve them from assault. The movement against tuberculosis will, it is feared, cease to be popular or to be supported by the public, if favourite places of resort are selected for tuberculous health homes. The fears expressed may be—and, we should judge, are—exaggerated; but, considering the immense coast line which Ireland possesses, it would be more politic to choose places not commonly frequented by health and pleasure seekers in large numbers. It is not only in Ireland that this objection is felt, for there are health and pleasure resorts—in Switzerland, for example—which used to be anxious to cater for consumptive patients, but now exclude them.

Victoria.

Lunacy.

The report of Dr. W. Ernest Jones, Inspector-General of the Insane for the State of Victoria, for the year ended December 31st, 1907, recently received by us, shows that on January 1st of that year there were 4,937 persons certified as insane, and that by the end of the year the numbers had increased to 5,052, or an increase of 115. Of the total numbers at the end of the year, 4,961 were on the books of the seven public asylums, and 91 on the books of the five licensed houses. The proportion of insane to general population at the time of Dr. Jones's report was, he states, 1 in every 249. Victoria has thus a high ratio of insanity, for the ratio in England and Wales in 1907 was 1 in every 282. This would appear, however, to be due to accumulation rather than to increasing occurrence of insanity, for a reference to the table, in which is given a general survey of the statistics since 1891, shows that whilst the total numbers remaining at the end of each

year have undergone progressive increase, the actual numbers of the yearly admissions have not substantially altered in the past decade. The total cases under care during the year 1907 amounted to 5,615, and the average number daily resident 4,571. In his report Dr. Jones deals separately with the State hospitals, the receiving house, and the private licensed houses, and it will be convenient in this abstract to follow his plan.

STATE HOSPITALS.

Admissions.

During the year there were 742 cases in all admitted, of whom 14, however, were statutory readmissions, leaving 728 actual admissions, as compared with 773 for the preceding year. Of the total number, 641 were first and 87 not-first admissions. In 316 the attacks were first attacks within three, and in 94 more within twelve, months of admission; in 111 not-first attacks within twelve months of admission, and in the remainder the attacks were either of more than twelve months' (77) or of unknown duration (19), or of congenital origin (35). They were classified according to the forms of mental disorder into: Mania of all kinds, 142; melancholia of all kinds, 99; senile and secondary dementia, 159; delusional insanity, 126; general paralysis, 42; primary dementia, 37; epileptic insanity, 16; confusional insanity, 11; congenital or infantile defect, 77; and other and rarer forms, 19. The high proportion of secondary and senile dements in this list is striking. As regards probable causation, alcohol was assigned in 64, or just under 8.8 per cent.; venereal disease in only 15; puberty and the menopause in 17; old age in 68; previous attacks in 86; moral causes in 129; starvation in 10; bodily trauma in 28; and various bodily diseases or disorders in 59. Hereditary influences were ascertained in only 57 and congenital defect in 56.

Discharges, Deaths, etc.

During the year 219 were discharged as recovered, giving a recovery-rate on the admissions of 30.08 per cent., with one exception the lowest recovery-rate since 1891. Also 68 were discharged as relieved, and 16 as not improved. It is to be noted that the general statistics of the State hospitals do not include cases sent to the receiving house and wards and discharged thereform, therefore the increased use of the reception house accounts to some extent for the low recovery-rate of the State hospitals; but, on the other hand, the medical superintendents of the several State hospitals comment, in their reports, on the unfavourable class of cases received during the year. During the year 328 patients died, giving a death-rate on the average numbers resident of 7.17 per cent. The deaths were due in 56 to cerebro-spinal disease, with only 22 deaths from general paralysis; in 129 to chest diseases, including 45 from pulmonary consumption and 67 from pneumonia; in 53 to abdominal diseases, with 12 deaths from typhoid fever; and in 36 to general diseases, including 19 from senile decay. A troublesome outbreak of typhoid fever occurred at Kew Asylum in April, 1906, spreading some months later to the Idiot Asylum at Kew, and lasting in the main asylum till March, 1908. In the whole epidemic there were 61 cases of undoubted typhoid, occasioning 14 deaths in all. This epidemic was the subject of an investigation by the pathologist, Dr. Mackeddie, whose report is appended to the general report. His inquiries and those of Dr. Hollow resulted in the discovery of one "typhoid carrier" whose stools contained typhoid bacilli nine months after recovery from the fever.

Cost.

The average total weekly cost of maintenance per patient in the State hospitals was 11s. 3½d., or, deducting collections, 9s. 8¾d.

LICENSED HOUSES.

At the beginning of the year there were 79 patients on the books of the licensed houses, and at the end of the year there remained 105. During the year 90 were admitted, in 71 of whom the attacks were first attacks. Only 4 were returned as suffering from general paralysis. Only general information is supplied as to the licensed houses, but it is stated that 31 were discharged as recovered, giving a recovery-rate on the admissions of 34.4 per cent. During the year 9 died, including 1 by suicide. The Inspector-General reports favourably upon the management of the licensed houses, but considers they would be still more useful if they were permitted to admit voluntary boarders.

RECEIVING HOUSE, ROYAL PARK.

The most important event in the treatment of the insane in Victoria in 1907 was the opening of this institution in September. From September 26th to the end of the year 86 cases were admitted, including among them almost all forms of mental disorder. Cases of recent melancholia were the most numerous (19), but there were also 10 cases of recent mania, 6 of general paralysis, 12 of delusional insanity, and 6 of alcoholism. Of the 86 admitted 33 were later transferred to hospitals for the insane, 33 were discharged recovered to their homes, 2 discharged as relieved, 1 as not improved, and at the end of the year 17 remained in the institution. Dr. Jones says that there is every reason to believe that the receiving house is filling a long-felt want, and that probably, as an adjunct to the mental hospital—that is, as the reception ward of the mental hospital—its usefulness will be still greater in the future.

THE MENTAL HOSPITAL.

In 1906 the Cabinet of Victoria decided to permit the diversion from its original purpose as an inebriate retreat of a building close to the receiving house and its conversion into a mental hospital. The building will have accommodation for 120 patients, and in addition to the usual adjuncts it is proposed to equip it with a clinical and pathological laboratory. It has further the advantage of being close to the university and the medical school, and its establishment should prove of great benefit to lunacy in Victoria. Its opening, however, will necessitate several alterations or additions to the lunacy law of Victoria, and these matters were still undecided at the time of the report of the Inspector-General.

Correspondence.

THE BUDGET.

SIR,—Is it not beneath the dignity of the profession to take the ground which many have, to go cap in hand to ask the Chancellor of the Exchequer to grant us concessions in the petrol tax, and to urge each member of the profession to seek the good offices of his member of Parliament to assist us in the matter? It seems to me not only degrading, but that we have no claim to any special abatement. We should face the expenses of our own profession like every other citizen, and should be above asking or accepting doles; but we should have the manliness to fight for our just rights.

It is not in legitimate taxes where the shoe pinches us as a profession. But we do feel and resent the injustice we suffer in being coerced under penalty to *give* our work to the State as no other members of the community are ever asked to do.

It is not just to demand from us certificates of death gratis; they are required solely for State purposes.

It is unfair to constrain us to notify births without remuneration.

It should not be obligatory on resident or visiting members of the staffs of large or small hospitals to make *post-mortem* examinations and attend the coroners' inquests to give evidence on patients who die in hospital after accidents without receiving any payment. Surely our free services to hospitals should not be burdened by this gratuitous work for the State.

These are a few of the instances in which our generosity is trespassed upon; and it is in such cases where we suffer in dignity and financially. We do not wish, and ought not to seek, concessions; but we ought, one and all, to contend for our rights as members of a noble profession, and as citizens of this great empire. If we honoured ourselves more we should receive more honour in return. Let us cease asking for alms and claim what is our birthright. This is where the British Medical Association should show and use its strong arm. If we are content to accept concessions in taxation for those of us who happen to be sufficiently well off to be able to keep cars, what will the answer be when we claim as our right just payment for work done for the State?—I am, etc,

Rugby, May 15th. CLEMENT DUKES.

SIR,—I quite agree with "An M.D. who drives a Carriage," and I also think that medical motorists should be satisfied with the reduction in licenses and not expect it on petrol as well. Some of my medical friends tell me that they can now do their work in half the time and at half the expense of horse-keep—that they have their afternoon free for golf and tennis and their evening for bridge; as for railways they have no use for them however great the distance.

From this it would surely appear that the motor is not used solely as "a means of earning a mere living."—I am, etc.,

May 16th. "EQUES."

SIR,—The suggestion of Dr. O'Connor[1] is apt to the present time. Friendly societies are exceedingly reluctant to increase the doctor's payment, and sick clubs tumble over each other in devising the lowest possible subscription. If we grant that these payments work out at a remuneration of something less than 1s. a visit or attendance, then any additional cost of medicine is an undue and exorbitant tax to be deducted from whatever profit there may be. The attempt should be made by every club doctor to charge a penny for medicine (a penny is paid for a bottle—we are dealing with poor folks, do not despise details). This is a mode of reasoning that the working man understands, and really the average club member is not so harsh and grasping as their spokesmen lead us to believe. In all probability increased pay in this indirect way would not be greatly objected to after the members became used to it.

The Divisions might here do good work and might advice all the club doctors within their membership. We in the Kensington Division are desirous of knowing the percentage of attendances and of bottles of medicine in club practice in the metropolis, and I shall be glad to hear from any one who has been careful enough to keep his club practice separate in his visiting list.

Dr. O'Connor, it is true, proposes to ask an additional shilling per annum. If some increase be obtained on whatever ground, no doubt it will stay, and the timid counsels of "Club Doctor" are not for a moment to be listened to. It is on the Branches and Divisions and the medical societies throughout the country that the responsibility rests.—I am, etc.,

London, W., May 17th. GEORGE CRICHTON, M.D.

SIR,—Ten days ago, as Medical Officer of Health for the most thinly-populated and mountainous county of England, I drew the attention of our county members to the fact that, in this county at least, where a high-powered motor is a necessity, and the doctors have great distances to travel, both horizontally and vertically, per patient visited, the petrol duty would be a most serious matter—would, in fact, be a tax on health and life, for the small farmer up in the mountains, miles away from his doctor, is by no means a wealthy man.

Within three days I received from one of our members a letter, in which he says: "The country doctor is to get his petrol untaxed, according to the Budget scheme—the only person so privileged." He is not to have a *rebate*, for the simple reason that what he uses is to be *untaxed*.

Few people have any idea of the petrol bill or the tyre account of the country doctor, who motors forty or fifty miles per day, rises 3,000 ft. vertically, consuming his petrol accordingly, or puts his brakes hard-on down a gradient of 1 in 8 or 1 in 10 to get down 3,000 ft., and tears his tyres in pieces by so doing. A tyre bill is bad enough to him, with his small receipts and exposure to wild weather, so don't begrudge him his Free Trade petrol!

We must wait till the "Finance Bill" is in print to ascertain exemptions proposed.—I am, etc.,

R. MUSGRAVE CRAVEN,
Medical Officer of Health, Westmorland Combined Districts.

Kendal, May 15th.

*** We hope that Dr. Craven's information may prove to be correct, but this cannot apparently be determined until the Finance Bill is published, which will not happen until the resolutions have been passed.

[1] BRITISH MEDICAL JOURNAL, May 8th, p. 1153.

FOREIGN BODY IN THE AIR PASSAGES.

SIR,—The report in the JOURNAL of May 15th, p. 1180, of a fatal case of bronchiectasis due to the unsuspected presence of a foreign body in the left bronchus in a child of 4 years of age, induces me to call attention to the value of the bronchoscope in the investigation of cases of limited bronchiectasis of obscure non-tuberculous origin. If there had been forthcoming in this particular case a history of a tintack having been inhaled it is probable that the child would eventually have been referred to a laryngologist experienced in the use of the bronchoscope, and from its position no difficulty would have been encountered in its diagnosis and removal.

It is a mistake to imagine that the employment of the bronchoscope should be limited to cases in which there is a history pointing strongly to the fact that a foreign body is present, whether backed up or not by an *x*-ray examination. That a careful bronchoscopic examination may help to clear up the diagnosis in some cases of limited suppurative bronchiectasis cannot, I think, be doubted, and it is, in my opinion, not only a justifiable but a necessary diagnostic procedure. Those who are familiar with the recorded results of bronchoscopic investigations on the Continent and in America well know that unsuspected causes of bronchiectasis other than foreign bodies have been found by direct endoscopic examination—for example, innocent bronchial tumours, cicatricial formations, and caseous plugs. In limited bronchiectasis, therefore, a routine bronchoscopic examination *per vias naturales* may be expected in the near future to take a recognized place in the diagnosis and treatment of this condition. The passing of the bronchoscope is comparatively easy, even in children, in expert hands, and in my experience patients are none the worse, provided the examination is made with delicacy and caution. Chloroform is, of course, usually necessary in children.

In the case under discussion it is perhaps open to doubt whether the recognition and removal of the foreign body would have effected a cure at the late stage when the child came under the care of Dr. Murray Leslie, but such a method of investigation probably held out the only possible chance for the child.

I am unable personally to claim to have found an *unsuspected* cause in a case of bronchiectasis by endoscopic means, though my experience includes the finding of an unsuspected foreign body by such means in the oesophagus. There are several laryngologists in this country who are skilled bronchoscopists, and it would be interesting to have their experience on the question which I have, I think not inopportunely, raised.—I am, etc.,

London, W., May 17th. WILLIAM HILL.

TETANUS OCCURRING AFTER SURGICAL OPERATION.

SIR,—In view of the widespread use of catgut as a ligature material Mr. W. G. Richardson's paper (BRITISH MEDICAL JOURNAL, April 17th, 1909, p. 948) has naturally aroused considerable interest amongst surgeons. While his article is a most careful record of facts and observations he does not venture any definite conclusion as to the real nature of the spasmodic conditions which have supervened after the use of catgut in the cases he has collected.

Unfortunately, the cases published since the appearance of his paper carry us no further, since in those in which a bacteriological examination was made it was inconclusive, while in others no attempt seems to have been made to discover what bacteria were present, although the cases were called tetanus. However, whether or not catgut was to blame in all the cases of so-called tetanus which have been reported, it behoves surgeons who use it as a ligature material to look to the method of sterilization employed. I venture to quote a paragraph from a paper of my own, on Ligatures and Buried Sutures, with special reference to Catgut (*Lancet*, April 20th, 1907), in which it was advocated that animal ligatures should be sealed in glass tubes with xylol and the tubes boiled for half an hour or an hour, or for about twenty minutes on each of two succeeding days, the equivalent temperature being raised to well over 100° C. by the pressure inside the tubes:

There is one condition to be attached to the routine use of catgut, and that is that the surgeon must be certain of its sterilization. For this purpose it is at least desirable that the

process be carried out by some one who can be trusted and is known to the surgeon. Another essential is that the method should be simple, inexpensive, and easily carried out, and that there should be no chance of contamination of the material after it has been sterilized. To fulfil these conditions it is better that the gut should never be interfered with between the time of its sterilization and the time when it is used in an operation. Any method of storage which involves repeated withdrawals from the same stock is objectionable on this account alone. In conducting experiments on the sterilization of animal ligatures I have always considered that those methods which aim at this end by means of chemical antiseptics are inferior to those in which heat is the agent employed. I was convinced that practically all surgeons with an aseptic technique would also prefer a method of sterilization by heat to any chemical disinfection.

—I am, etc.,

Middlesex Hospital, W., May 17th. ALFRED E. JOHNSON.

EARLY DIAGNOSIS AND TREATMENT OF CANCER OF THE STOMACH.

SIR,—In discussing the operative treatment of cancer of the pyloric end of the stomach[1] Mr. Moynihan says "all the primary glands at least should be taken (these are the lower and upper coronary, right paracardial, suprapyloric, right suprapancreatic, right gastro-epiploic upper and lower, and the retropyloric)." According to him the removal of all these parts is possible, and he has in several cases removed the right suprapancreatic glands by "gauze stripping," without injury to the hepatic artery or the pancreas.

While admitting the possibility of complete removal of all the glands along the lesser curvature and coronary artery and along the greater curvature we do not feel convinced that we can modify the conclusion to which we gave expression in the *Lancet*,[2] after examining a large number of specimens, that many of the primary glands of the stomach are beyond the effective reach of the surgeon. Many of the right suprapancreatic glands lie under the hepatic artery almost embedded in the upper border of the pancreas.

Moreover, we believe that the list of glands given above does not include all the primary glands. We have already stated that in some of our specimens in which injection was very complete vessels pass from the pyloric end of the stomach directly to glands of the biliary chain lying along the lower part of the common bile duct.

The removal of the primary glands is an advance in gastric surgery founded on recent anatomical research, and though it is desirable that in the operation of partial gastrectomy every attempt should be made to remove as many glands as possible on the lines laid down by Mr. Moynihan, it should be borne in mind that unless the right suprapancreatic glands can be entirely removed, which we doubt, and unless the biliary chain is included in the field of operation, it cannot be supposed that the whole lymphatic area of the pyloric end of the stomach has been excised.—We are, etc.,

J. F. DOBSON,
Leeds, April 28th. J. KAY JAMIESON.

THE COAGULATION TIME OF THE BLOOD.

SIR,—Professor Sabrazès writes that in my article in your issue of April 24th I quote his method as being one of the most accurate. But he has quite mistaken my meaning. I do not think that it can be described in any way as an accurate method, and I only said that the end-point which he and Dr. McGowan adopt is more reliable than that employed in other clinical methods.

In the paper[3] in which I described my method of determining the coagulation time of normal blood, I reviewed the different methods, and among them Professor Sabrazès's and Dr. McGowan's. I referred to all the work which Professor Sabrazès has done on this subject, and showed that both methods, although in other respects different, had in common the adoption of very similar end-points. In my article in the BRITISH MEDICAL JOURNAL I therefore did not go over this ground again in detail, but only mentioned Professor Sabrazès's name in connexion with the point in which Dr. McGowan's method resembles his. The two methods are, however, essentially different. It is true that at first I did not think so, and was inclined to believe that McGowan's method was, indeed, rather a retrogression, because he did not pretend to keep a constant temperature; but that was before I had had any practical experience in working with both of them. I wrote to Professor Sabrazès, and he was so good as to order for me the complete apparatus in its latest form, and in using it I closely followed his directions. I then found, in the first place, that in taking the second drop of blood from the puncture instead of the first drop, as in McGowan's method, he had allowed entrance to a source of considerable error. There is an acceleration of coagulation in the blood following the first drop, and the amount of this acceleration is inconstant. In the second place, the method of maintaining a constant temperature was so extremely inefficient as to be little better than none at all. It is possible at the expense of a considerable amount of time and trouble to obtain for a short time an approximately constant temperature in the closed box, but the lid has to be removed every half minute in order to test for coagulation. If the room temperature is higher or lower than 18·5° C. there is, of course, an almost immediate equalization of the temperature of the air in this wide shallow box with the room temperature, and this disturbance is only very slowly corrected, when the lid is replaced, by the warm water or ice in the lower compartment of the box, and long before the temperature has returned to the constant the lid must be again removed to ascertain again whether coagulation has occurred. By no device, and I tried many, did I find it possible to maintain anything approaching a constant temperature of 18·5° C. unless the room temperature happened to be 18·5° C. also. Dr. McGowan's method, of course, pays no attention to variations of temperature between 15° C. and 20° C., and for this reason is useless for making comparative observations, but in this respect it is very little inferior to Sabrazès's.

Besides these points there are many other differences between the two methods, some of which are referred to in Professor Sabrazès's letter. For example, he lays stress on the importance of using tubes of exactly equal diameter. Now, McGowan's tubes are not very uniform in this respect, and in testing McGowan's method I thought of this as a possible source of error, but in practice I found that it made no appreciable difference. When two McGowan's tubes taken at random without reference to their diameter were filled from the same drop of blood and both placed together, so that they were under the same conditions, the average difference in fourteen of such double estimations was 25 seconds. When the tubes were specially selected so as to be as different in their diameter as possible, the average difference of thirteen estimations was also 25 seconds. The average difference of fifty-six estimations when tubes of equal diameter were obtained by using halves of the same tube was 29 seconds.

Another important point of difference is that in Sabrazès's method short columns of blood are used, whereas in McGowan's a column of about 4 in. long is employed. Professor Sabrazès says that with a short column you avoid "the error caused by the unequal repartition of fibrin in long tubes." Does he mean by this that fibrin in a tube of 1 mm. diameter can in the half-minute or so in which it may be present before its discovery alter its position to any appreciable extent under the action of gravity? It would, to say the least of it, appear to be extremely improbable that it does. I should like to know what evidence he has to show that there is any such "unequal repartition of fibrin" in blood under these conditions. On the other hand, I can show that short columns of blood are sure to lead to error. In the paper above referred to, in discussing the action of different foreign bodies in regard to their effect on the coagulation time, I have shown that air has about twice as great a power of accelerating coagulation as glass; and this has been fully borne out by my experience in using McGowan's tubes. When the column of blood is interrupted by bubbles of air, the blood near the air bubbles is always found to have coagulated first. For this reason the first and last quarter of an inch of the blood column in a properly-filled McGowan's tube must not be tested for coagulation, as this is very apt to give a fallacious result. But this is just the condition under which one works with the short column of blood in Sabrazès's method, so that this comes to be a very important difference between the two methods.

[1] BRITISH MEDICAL JOURNAL, April 3rd, 1909.
[2] Lymphatic System of the Stomach, *Lancet*, April 20th, 1907.
[3] *Quart. Journ. of Exper. Physiol.*, Nov., 1908.

When Professor Sabrazès says that no method can be absolutely accurate as regards the maintenance of a constant temperature because of the differences in the body temperature of the persons from whom the blood is taken, he is no doubt, strictly speaking, quite right, although it is more a theoretical than a practical objection, for I have never found fever in itself to have any appreciable effect on the coagulation time of the blood *in vitro*; but when he goes on to say that such differences as may exist between the physical properties of blood from different people are sufficient to alter noticeably the rate at which the temperature of the blood comes into equilibrium with the temperature of its surroundings, he is making a surprising statement, which, so far as I know, is entirely unsupported by any experimental proof.

The unreliability of his method is clearly shown by the account of the work done with it by Geneuil[1] under Professor Sabrazès's own direction. Many of the results appear to have been obtained by Professor Sabrazès himself. Fifty-eight observations were made on patients. They are extremely variable, not only in different but also in cases of the same disease. Times of 3 minutes, 3½ minutes, and 4½ minutes are given, while at the other extreme there are times of 15 minutes and 17 minutes, and all degrees between these two limits are represented, although most are between 7 and 12 minutes. I exclude two cases of haemophilia in which times of 30 and 35 minutes are recorded. Some cases of malignant disease are shown to have times varying from 3 to 10 minutes, in three cases of amenorrhoea the times were 9½, 12½, and 15 minutes, and so on, so that when an attempt is made to draw general conclusions, the results are so conflicting that it is obvious that they have no firm basis. As a matter of fact, the variations they record are practically, without exception, due to experimental errors, for I have found with my modification of McGowan's method that the coagulation time is practically normal in patients suffering from such conditions as their list is made up of; the only exceptions which I have so far found have been cases of haemophilia or those cases in which there was reason to believe that a condition of septicaemia was present or had recently been present.

For these reasons I think that Professor Sabrazès is not justified in recommending his method as not only simple but also exact and accurate. It is certainly not accurate. Nor should he say that Dr. McGowan or I have "borrowed" his method. Dr. McGowan developed his method entirely independently; he most certainly did not in any way or in any detail derive it from Professor Sabrazès. And since I, in modifying McGowan's method, specially mentioned Professor Sabrazès's in relation to the only point in which there is any resemblance between the two methods, and refer to a paper in which I discuss his work, I think I have done fully as much in the way of acknowledging his connexion with the subject as could reasonably be expected.—I am, etc.,

Berlin, May 9th. T. ADDIS.

[1] *Méthodes pour déterminer le début de la coagulation du sang.* Bordeaux. 1906.

RESISTANCE TO PUERPERAL INFECTION.

SIR,—Dr. Chevers asks a most interesting question (May 8th, p. 1154), and one which must have occurred more than once to practically every physician who practises obstetrics, but more especially to those whose lot it is to practise the art among the lower sections of our population.

In my experience it is almost usual in, for example, a colliery district, for the parturient woman to don her dirtiest working clothes at the onset of labour, and to pile around her on the bed the filthiest and most suspicious rags which the dwelling can provide. Among these she may lie for days, the warmth of the bed no doubt favouring considerably the decomposition of blood and lochia and the growth of any bacteria which may happen to be present.

With Dr. Chevers's explanation, however, I do not agree, and my own is as follows: Roughly, the population may be divided into those whose habits are cleanly and those whose habits are not. The latter class is constantly exposed to the risks of puerperal sepsis, and, as a consequence, suffer more from its ravages. As time goes on, however, the very susceptible among them become weeded out, simply because they die and leave no offspring, or only a limited number; the less susceptible or, in other words, the more immune in virtue of the natural immunity they happen to possess, thrive and rear families to which they bequeath this very useful characteristic. It is seen, then, that among the dirty classes the more or less immune (to puerperal fever) thrive; the more or less susceptible die out. Consequently, in time immunity to puerperal fever becomes to a greater or lesser extent a feature of the dirtier classes; in other words, dirty habits and immunity to puerperal fever become correlated.

In the case of the class guilty of considering cleanliness a virtue, the risks of puerperal sepsis are by instinct reduced to a minimum, and so is the ultimate immunity which the class as a whole acquires against the disease. This explanation, which shows the phenomenon to be one of natural selection or, to use Herbert Spencer's phrase, of the survival of the fittest, also throws light on the fact that, while puerperal fever very seldom occurs in lying-in hospital practice, a certain proportion of cases still occur in private practice, owing to the fact that the hospital patient is more often than not a member of the lower and therefore more generally dirty classes.—I am, etc.,

Ullapool, May 11th. A. R. GUNN, M.B.

UNQUALIFIED MEDICAL PRACTICE.

SIR,—In your issue of May 15th you publish a copy of the circular addressed by the Local Government Board to medical officers of health, inquiring as to the evil effects of the practice of medicine and surgery by unqualified persons; and a footnote is added giving the reply of one of your correspondents, to the effect that there is no unqualified practice in his district except that of chemists; this reply is also commented on in your editorial on page 1200 of the same issue.

Unqualified medical practice is indefensible in any one, but your correspondent in imputing such to a body of scientific men like pharmacists has no ground for so doing except the delinquencies of a few; and he has overlooked a much more serious and at the same time a universal form of unqualified practice, which not only makes a serious inroad on the rights of physicians and pharmacists alike, but is a great and growing danger to the public health. I refer to the sale of proprietary and "patent" medicines, the manufacturers of which, as a rule, are neither doctors nor chemists, and thus possess no qualification whatever, except the qualification of commercial enterprise. A pharmacist, if he has not the medical qualification, has at least that of understanding the drugs he handles, their actions and their doses, and in many cases he also knows not a little about the body into which they are put, and it is often necessary for him to give some advice, generally in the form of warning, as to the use of drugs. Further, it ought to be remembered that the public will never be taught to go to a doctor for every slight ailment, any more than they will be induced to call in a carpenter for every picture that requires hanging; but there are very few chemists, indeed, who are so foolish as to abuse their knowledge or trespass on the domain of the doctor, strong though the temptation is in districts where doctors dispense their own medicine.

But the patent medicine manufacturer has neither diffidence nor scruple. His object is to extort money from the public, and he does so most successfully for himself, though often dangerously for them. His sway is not confined to a suburb or town, but is world-wide; he ingratiates himself, through advertisements, with a simple public before either doctor can advise or pharmacist can warn, and his appeals are generally couched in terms that cast untrue reflections on physicians and pharmacists alike, for these are too honest and too well-informed to serve his purpose.

If the Local Government Board, genuinely actuated as they are by a desire for the public weal, intend to put down unqualified practice, they should start at the beginning, and take steps to end this crying evil.—I am, etc.,

May 17th. PHARMAKOS.

RURAL DISTRICT NURSING ASSOCIATIONS.

SIR,—When the Midwives Act came into force my midwifery practice fell off considerably. I was frequently

called to difficult cases by midwives—some were difficult naturally, others through ignorance or want of skill. I used to go, give my services, and not get paid in more than one case in three. Result, midwifery very unsatisfactory, three deaths, several women permanently injured.

I then informed every midwife, including the nurse employed by the "county lady," that in two months from date I would only attend cases I was engaged for in the ordinary way, and would go to no case of theirs, however urgent or difficult; this was in order that the nurses could explain to the women my decision. They all practically told me if I would not go some one else would. They continued sending; I went until the time was expired; the next case I refused, and I continued to refuse. I was abused on all sides, but still kept to my decision. The result was that in 1908 I was not sent for except where previously engaged. I attended 121 cases, have been paid for 95 of them, and will be paid for most of the others. There have been no deaths.

I am a member of a union, and advocated my way of dealing with unruly midwives and nurses. Most of the members practically told me it was most unprofessional to act in such a manner, and asked me what would the public say if a patient died. One gentleman told me my duty was to save life, allay pain, and take what payment I could get after the work was done. After sixteen months' strict adherence to the above rules, I am glad to say my practice all round has not suffered, and several working men have told me they are glad I acted as I did, as they can see now that it has been for their benefit to have skilled attention for their wives.

A lawyer is a gentleman in private, a business man in his office. A clergyman is a gentleman in private, but a good business man in public. Is a doctor to be a gentleman in private and a fool in his business?—I am, etc.,

May 11th. ANOTHER G. P.

THE LATE SIR WILLIAM GAIRDNER.

SIR,—In response to the wishes of Lady Gairdner and her family, I have undertaken to edit the medical and scientific papers and articles of the late Sir William Tennant Gairdner, and to preface the collection with a biography.

In order to render the work as worthy as possible of the memory of the late professor, I am desirous of enlisting the sympathy and help of his friends. I venture, therefore, to request through your columns that any one who has in his possession any letters or other literary remains of Sir William Gairdner will be so kind as to communicate with me.—I am, etc.,

G. A. GIBSON, M.D.

3, Drumsheugh Gardens, Edinburgh, May 12th.

LOCAL ANAESTHETICS RECOMMENDED AS SUBSTITUTES FOR COCAINE.

SIR,—Referring to the recent report to the Therapeutic Committee on "The Local Anaesthetics Recommended as Substitutes for Cocaine" by Dr. Le Brocq, which was published in the BRITISH MEDICAL JOURNAL of March 27th, may we be allowed to point out that the material used by the investigator in demonstrating relative toxicity was strictly confined to rabbits, mice, and frogs? Thus the conclusion arrived at in the report that alypin is more toxic than cocaine only means that it is more toxic to these animals. As a matter of fact, had Dr. Le Brocq carried out his experiments on cats and dogs he would have obtained quite different results. The average lethal dose of cocaine in cats was found by Dr. Impens to be 0.04 gram per kilo body weight, and that of alypin 0.06. On the human subject also, clinical experience has proved that alypin is much less toxic than cocaine.—I am, etc.,

London, E.C. THE BAYER CO. LTD.

DR. JOHN HORNE, of Scarborough, who graduated M.D. in the University of Edinburgh in 1859, is about to present in perpetual trust a building on a freehold site in Scarborough, containing eight homes for aged and deserving persons who, while they possess a small income, are yet not in a position to pay house rent. Each home consists of a combined kitchen and sitting room, a bedroom, and a combined scullery and pantry. The building, which has a verandah, is of brick with stone dressings, of the Tudor style. It will be unendowed, but Dr. Horne has provided a fund for the payment of the fire insurance, upkeep, and water rate.

Universities and Colleges.

UNIVERSITY OF CAMBRIDGE.

THE following degrees were conferred on May 13th:

M.B., B.C.—B. H. Palmer, Pemb.; J. R. C. Canney, Christ's.
M.B.—C. H. Treadgold, Cla.

UNIVERSITY OF LONDON.

GUY'S HOSPITAL MEDICAL SCHOOL.

MR. R. A. CHISOLM has been appointed Greville Research Student for research in connexion with the subject of cancer.

VICTORIA UNIVERSITY OF MANCHESTER.

The Winter Session.

THE Chancellor of the University, Viscount Morley of Blackburn, has consented to open the new session on October 5th, and to deliver an address.

Dean of the Medical Faculty.

Professor Stirling has been reappointed Dean of the Medical School and of the Faculty of Medicine.

Votes of Condolence.

At a meeting of the Council, held last week, resolutions were passed expressing the profound regret of the Council at the deaths of Professor Gamgee, formerly Professor of Physiology at the Owens College; of Dr. Lang, Principal and Vice-Chancellor of the University of Aberdeen; and of Mr. T. F. Byrne, formerly Lecturer in Common Law in the Manchester University.

Memorial Tablet.

A medallion of the late John Strachan, M.A., LL.D., formerly Professor of Greek in the University, has been presented to the university by the subscribers to the Strachan memorial fund, and it is proposed to unveil it on Tuesday, May 25th.

UNIVERSITY OF BIRMINGHAM.

Opening of New Buildings.

AN intimation has been received that the King and Queen will open the new buildings of the University of Birmingham on Wednesday, July 7th. A site of 27 acres was presented to the university by Lord Calthorpe, who subsequently gave 20 additional acres for a recreation ground. The total cost of the buildings will be £400,000, and, with the equipment, the expenditure will exceed half a million. Of the £400,000 received in response to Mr. Joseph Chamberlain's appeal, only about £300,000 has been available to meet the outlay on the buildings and site, and the council now appeals for another quarter of a million to enable it to provide for future developments and open the buildings free of debt; of this sum about £75,000 has been received.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AN extraordinary Comitia was held at the College on May 13th, the President, Sir R. Douglas Powell, Bart., in the chair.

Fellowship.

The members elected at the preceding Comitia, were admitted Fellows of the College (see p. 1156.)

Licence.

The licence of the College was granted to Mark Bates and Thomas Benjamin Dixon.

Resignation of Dr. E. Liveing.

A letter was read from Dr. E. Liveing, resigning his office of registrar and the membership of the Committee of Management, both to take effect at the end of the collegiate year in July next.

The President spoke in eloquent terms of the services of Dr. Liveing, and regretted that the purport of his letter left the College no option but to accept his resignations.

Sir Wm. Church then moved:

That the College receives with much regret the resignation of Dr. Liveing of the office of registrar, and in accepting his resignation takes the opportunity of recording on its minutes the faithful and efficient manner in which he has for so many years carried out the duties of his office, his constant courtesy to the Fellows, and his universal watchfulness over the interests and dignity of the College.

This was seconded by Dr. Norman Moore, and carried by acclamation.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE COMING COUNCIL ELECTIONS.

THE Council is at present constituted as follows:

President.

Mr. H. Morris; C, (1) 1893 (substitute), (2) 1898, (3) 1906.

Vice-Presidents.

Sir W. Watson Cheyne, Bart.; C, (1) 1897 (substitute), (2) 1901.
Mr. Pearce Gould; C, (1) 1900, (2) 1908.

Other Members of Council.

Mr. Mayo Robson; C, (1) 1893, (2) 1901.
Mr. Butlin; C, (1) 1895, (2) 1903.
Mr. Edmund Owen; C, (1) 1897, (2) 1905.
Mr. Rickman J. Godlee; C, (1) 1897, (2) 1905.
Mr. F. Richardson Cross; C, (1) 1898, (2) 1906.
Mr. R. Clement Lucas; C, 1901.
Mr. J. H. Morgan, C.V.O.; C, 1902.
Mr. H. H. Clutton; C, 1902.
Mr. C. W. Mansell Moullin; C, (1) 1902 (substitute), (2) 1907.
Mr. Clinton Dent; C, 1903.
Mr. G. H. Makins, C.B.; C, 1903.
Mr. F. S. Eve; C, (1) 1904 (substitute), (2) 1907 (substitute for Sir J. Tweedy till 1912).
Mr. A. A. Bowlby, C.M.G.; C, 1904.
Mr. G. Barling; C, 1904.
Mr. C. H. Golding-Bird; C, 1905.
Mr. G. A. Wright; C, 1906.
Mr. W. Bruce Clarke; C, 1906.
Mr. Charters J. Symonds; C, 1907.
Mr. W. F. Haslam; C, 1908.
Mr. C. B. Lockwood; C, 1908 (substitute for Howard Marsh until 1910).
Mr. W. Arbuthnot Lane; C, 1908.

The following list shows the proportional representation of metropolitan medical schools and the provinces:

St. Bartholomew's	4
Charing Cross...	1
Guy's	4
King's College	1
London	2
Middlesex	2
St. George's	1
St. Mary's	1
St. Thomas's	2
University College	1
Total number attached to London schools	19
London member unattached to any hospital	1
Provincial members (Birmingham 2, Bristol 1, Manchester 1) ...	4
Total	24

Having been elected or re-elected in 1901, Sir Watson Cheyne, Mr. Mayo Robson, and Mr. Clement Lucas retire in July, 1909.

AN ordinary Council was held on May 13th, Mr. Henry Morris, President, in the chair.

Begley Studentship.

Mr. J. R. D. Webb (undergraduate of Liverpool University), having obtained the highest marks, was awarded this studentship for three years. This studentship, of the annual value of £20, is awarded to the candidate obtaining the highest number of marks in the anatomical part of the second examination of the Conjoint Examining Board in England.

The late Mr. C. G. Wheelhouse.

The following resolution was adopted by the Council:

That the Council hereby express their deep regret at the death of Mr. C. G. Wheelhouse, whom they highly esteemed as an able surgeon, keenly interested in all matters relating to surgical education and the advancement of surgical science, and whose services to the profession and to the College they remember with grateful appreciation. That the Council desire also to record their warm regard for the excellent personal qualities which won for Mr. Wheelhouse the friendship of all who knew him, and to convey their sincere sympathy to Mrs. Wheelhouse and her daughters in their bereavement.

Diploma of Member.

Diplomas were granted to ninety-one candidates found qualified at the recent examination.

Licence in Dental Surgery.

Diplomas were granted to thirty candidates found qualified at the recent examination.

Courts of Examiners.

Mr. C. A. Ballance was elected a member of the Court in the place of Mr. A. P. Gould, recently retired. The President stated that the vacancy on the Board of Examiners in Dental Surgery, occasioned by the retirement of Mr. Pearce Gould from the Court of Examiners, would be filled up at the next meeting of the Council.

Gift to the College.

A work in bronze and marble by Alfred Gilbert, M.V.O., entitled *Mors janua vitae*, offered by Mrs. Macloghlin, was accepted by the Council, with its best thanks.

CONJOINT BOARD IN ENGLAND.

AT a meeting of the Comitia of the Royal College of Physicians on April 29th, and of the Council of the Royal College of Surgeons on May 13th, Diplomas of L.R.C.P. and M.R.C.S. were respectively conferred upon the following candidates:

A. Abrahams, H. W. L. Allott, M. A. Ansari, R. R. Armstrong, J. L. Atkinson, K. J. Aveling, †M. Bates, B. F. Bartlett, P. B. Bharucha, H. E. Bloxsome, T. L. Bomford, W. F. Bowen, H. Bowring, E. C. Braithwaite, T. F. Brown, W. H. Butler, F. G. Caley, F. G. Cawston, H. D. Clapham, A. J. Clark, J. P. Clarke, K. Comyn, R. B. Dawson, C. Deuntzer, J. R. Dick, †T. B. Dixon, J. R. B. Dobson, M. Donaldson, A. W. Duncan, G. H. Dunn, L. W. Evans, T. Evans, P. C. Field, H. W. Gabe, E. B. Garrard, P. K. Gilroy, C. Gouldesbrough, *G. A. Greaves, H. S. Hall, D. J. Harries, T. Harrison, H. Hudson, E. P. L. Hughes, R. H. Hutchinson, V. P. Hutchinson, R. S. Ingersoll, R. P. Jones, C. F. V. Kebbell, L. H. Khan, H. G. Kilner, S. J. Lee, *A. S. MacNalty, R. H. Mawhood, J. K. Milligan, H. E. H. Mitchell, E. B. Morley, H. R. Moxon, N. R. Naik, F. C. Nichols, R. D. O'Leary, D. G. S. R. Oxley, G. F. Page, R. Pearse, L. B. Perry, R. A. Rankine, A. A. Rees, E. D. W. Reid, A. Rhodes, A. D. Rope, F. A. Roper, A. J. Ryle, F. F. Saldanha, N. G. H. Salmon, A. C. Schulenburg, C. F. Searle, N. S. Shenstone, S. Shepheard, H. G. Smith, R. B. Smith, E. R. Stone, T. W. R. Strode, W. F. Sutcliffe, H. L. Tasker, H. A. Treadgold, R. J. Vernon, D. Wainwright, H. C. Waldo, G. R. Ward, L. M. Webber, M. W. E. Widegren, W. G. Wince, R. N. Woodsend, T. S. Wright.

* M.R.C.S. granted on April 1st. † L.R.C.P. granted on May 13th.

CONJOINT BOARD IN IRELAND.

THE following candidates have been approved at the examinations indicated:

FINAL PROFESSIONAL.—B. G. S. Belas, F. H. Gleeson, H. G. Massy-Miles, R. Power, E. Smith, G. C. Sneyd, C. H. Stringer, B. Wallace, J. McG. Williams.

D.P.H.—*W. W. Browne, Captain R.A.M.C.; R. F. O'T. Dickinson, Lieutenant R.A.M.C.; B. D. Gibson, D. J. O'Connor, N. D. Walker, Captain R.A.M.C.

* With honours.

Medico-Ethical.

The advice given in this column for the assistance of members is based on medico-ethical principles generally recognized by the profession, but must not be taken as representing direct findings of the Central Ethical Committee.

DISTRICT NURSES AND MEDICAL MEN.

WE have received a complaint from a member resident in Scotland with regard to the action of a district nurse, who, as far as we can gather from our correspondent's letter, is not working under Queen Victoria's Jubilee Institute for Nurses, or under rules approved by it. The complaint is that the nurse attends cases of illness, as well as confinements, without the supervision of a medical man. He also makes a complaint against a neighbouring practitioner who, in cases of difficulty—we presume he refers more especially to confinements—has been called in to assist the nurse. The nurse is fully trained, and, we also presume, certificated. Our correspondent asks: (1) Whether the practitioner referred to is in order in attending confinements where the nurse fails; he also asks whether under the circumstances the nurse does not act as an unqualified practitioner. (2) Is the doctor in order in attending my cases at the call of the nurse? (3) Am I in order in attending one of my own patients who had been under the care of the nurse? (4) Am I in order in granting a death certificate if the patient above referred to dies? (5) Is the nurse in order? (6) Can anything be done to prevent the nurse practising and being paid by subscription, or can anything be done to stop prescribing chemists and chemists who prescribe one's own mixtures?

*** (1) The nurse would fail in her duty if she did not call in skilled assistance. Our correspondent must know that in most towns and villages there are nurses and midwives who do a large practice in midwifery without a medical practitioner being present. If our correspondent will refer to the BRITISH MEDICAL JOURNAL of April 3rd, p. 852, he will see the suggested rules for district nurses under the Queen Victoria's Jubilee Institute. Rule 9 reads as follows:

> 9. In all cases of general sick nursing the attendance of the nurse must be sanctioned by the medical man, it being understood that her attendance on such cases does not interfere with her engagements to lying-in women. When she has anything to communicate to the doctor she shall do so in writing, and it is hoped the doctor will do the same to avoid leaving verbal messages with patients or their friends.
>
> The nurse may attend a patient on application or in emergency, but must not continue to visit without a medical man being informed. Should the nurse advise the patient to have a doctor and the patient refuse, the nurse may no longer attend this patient except in case of urgency. She must in any case report the matter to her Secretary.

(2) This, if the facts are correctly stated, would be a breach of professional etiquette. (3) Certainly. (4) Yes, if our correspondent is satisfied as to the cause of death. (5) We do not understand what this refers to. (6) As most, if not all, district nurses are paid by subscriptions collected in the neighbourhood, we can hardly see how this point can affect the complaints our correspondent brings against the nurse.

We would suggest that he should see the principal subscribers and endeavour to get them to form a committee, of which he should be a member, and draw up a set of rules for the guidance of the nurse. The Medico-Political Committee has the matter of rules for district nurses in hand, and is to have a conference with the Committee of Queen Victoria's Jubilee Institute in connexion with the matter. The latter part of query No. 6 refers to a subject too wide for discussion here.

MONOPOLY RIGHTS IN PRACTICE.

DISGUSTED writes that a neighbouring practitioner who practises in an unopposed village six miles from his house, where our correspondent has also an unopposed practice, has opened a surgery in our correspondent's village and dispenses medicine for our correspondent's patients on his own account. Asked to explain what was meant by dispensing medicine "on his own account," our correspondent replies that "wherever a man opens a surgery he is bound to take a certain proportion of patients away from the resident doctor, and his object in writing was to ask whether a man who has an unopposed practice can with any decency open a surgery in his opponent's unopposed practice six miles away, and how this is to be looked upon by members of our profession."

*** No one can claim an absolute monopoly of the area within which he resides, and although it may be regrettable that competition should cause ill-feeling, it is impossible to lay down any hard-and-fast ethical rules which can prevent it.

GRATIS ATTENDANCE ON THE FAMILIES OF MEDICAL MEN.

X. writes: A retired medical man calls in a neighbouring practitioner to see his wife, who is suffering from influenza. She is attended for about a fortnight, and a bill is sent in, charging at the rate of 10s. 6d. a visit. X. is not well off, having an income of about £300 a year, and when in practice made it a rule never to charge a fee to a brother practitioner. He asks what he should do.

*** There is no absolute rule that medical practitioners should not charge one another for their services, but it is a general custom. Payment should always be tendered, although, in our opinion, in most instances it should be refused. We think where there is no friendly relation already existing between the practitioners, if gratis treatment is expected it should be asked for in the first instance. In the present case our correspondent might write a courteous letter explaining his circumstances and asking for a reduction in the amount of the bill.

Medico-Legal.

TRANSFER OF APPOINTMENTS.

"5779" writes that he has recently bought a practice, and that certain appointments were mentioned in a letter during the negotiations as transferable. That letter has been lost, and the vendor says that he could not guarantee an appointment any more than he could a patient. Our correspondent asks whether he would be justified in making a deduction from the purchase money as a set-off against the loss of appointments.

*** It is very usual in the sale of a practice for one of the conditions of sale to be a return of a sum of money equal to the annual income derived from any appointment that the vendor may fail to get transferred. If there is no special agreement to this effect the buyer is not entitled to make any deduction.

AT the meeting of the Zoological Society of London on May 11th, Mr. R. H. Burne, M.A., F.Z.S., exhibited a series of specimens, from the Museum of the Royal College of Surgeons of England, of adaptive structures for the respiration of air in some aquatic invertebrates and tropical fresh-water fishes.

A NEUROLOGICAL institute has recently been founded in New York for the treatment of nervous and mental diseases both curable and incurable. The institute comprises also a clinic for the study of nervous diseases, and the training of special nurses in the care of persons suffering such affections. The institute owes its foundation mainly to the efforts of Dr. Joseph Collins and Dr. Joseph Fraenkel, and more than £20,000 has already been subscribed. It is proposed to establish a sanatorium for convalescents in connexion with the institute.

Obituary.

PERCY BOULTON, M.D.EDIN., M.R.C.P.LOND., L.R.C.S.EDIN., L.M.,

CONSULTING PHYSICIAN, SAMARITAN FREE HOSPITAL FOR WOMEN.

THIS obstetrician, so well known as one of the most active promoters of the associations for the proper education, examination, and registration of midwives which have developed during the past thirty years, died on May 15th at his town residence, Seymour Street, after a long and trying illness, in his 68th year.

Percy Boulton was born at Beverley on July 9th, 1841, and received his education in that town. He belonged to a medical family, his father, Dr. W. G. Boulton, being a practitioner in Beverley, and his brother succeeded the father and continued in the practice until his death several years ago. Percy was an athlete in his youth, and distinguished himself as a runner, and until his recent illness remained robust all through his career.

He studied medicine at the University of Edinburgh, and after qualification set up in practice at Worksop, Notts, but soon afterwards settled in London, where he assisted Dr. Tanner in his private practice. In 1871 he was elected Physician to Out-patients at the Samaritan Free Hospital, and in 1880 full Physician; he retired in 1900. For practical work he is chiefly remembered as the advocate of the purse-string suture in perineorrhaphy, which method he extensively practised at the hospital; but he was mainly distinguished in his hospital career as a loyal colleague and an able chairman, and he greatly contributed to the prosperity of the hospital by pleading its cause before wealthy and distinguished patients.

Dr. Boulton was a very active Fellow of the Obstetrical Society of London. He joined it in 1866, and, although he took but little part in the reading and discussing of papers and the exhibition of specimens, he was an energetic member of the council, working hard in the committees and subcommittees. He held the office of Chairman of the Board for the Examination of Midwives from 1897 to 1900; altogether, he was Examiner for eleven years on that board, which dissolved itself when the Midwives Act became law. Boulton's public spirit and zeal was made specially manifest when, towards the end of the Eighties, the old Berners Street societies left that thoroughfare for their present home in Hanover Square. He took upon himself the greater part of the weight of responsibility for the complicated administrative and legal business involved in the change of residence simultaneously with the maintenance of the relations of the Obstetrical with the Royal Medical and Chirurgical Society, which, as at the old address, remained its landlord. By 1890 the old Berners Street societies, the Pathological and Clinical, as well as the Obstetrical, were lodged in Hanover Square under the wing of the larger and older chartered society, an arrangement which stood for seventeen years, until, in 1907, they, taking up several other similar associations, fused into the Royal Society of Medicine. It was greatly owing to Boulton's good management that the change was managed with little or no inconvenience, so that the old relations remained satisfactory for so many years, until circumstances rendered another change imperative.

Dr. Boulton was as active in promoting legislation for the legal registration of women systematically trained, duly examined, and found fit and proper persons to attend labours, as he had been in guarding the interests of the Obstetrical Society in times of change, when bad management might have caused the Fellows trouble and expense. He acted not as a teacher of obstetrics or as a scientific authority, but rather as a physician admired and respected in influential circles, and by his tact he put before our legislators the state of the case—that is to say, the need for the legal qualification of midwives—in a way thoroughly comprehensible to them. As in the case of the Obstetrical Society, he took an infinite amount of pains, leaving nothing undone that had to be done, and for that he earned the thanks of the present generation of obstetrical teachers who actively worked with him, never relaxing their efforts until the Act became law.

Boulton wrote but little; his most important gynaecological work was quoted in textbooks and formed the subject of a monograph prepared by himself and published

in the thirty-second volume of the *Transactions of the Obstetrical Society*. He also edited the fourth edition of Tanner's *Index of Diseases*, and for six years took upon himself the arduous duties of editor of the *Transactions* of the society which he served so faithfully.

Dr. Boulton was twice married but had no children.

DR. CHARLES KENNEDY, of Edinburgh, died with startling suddenness early in the morning of Monday, May 17th. He was apparently in his usual state of health on Sunday, and soon after midnight he left his house to visit a patient. He had only gone a yard or two from his door when he died. Born fifty years ago, the son of David Kennedy, the famous Scottish vocalist, he, like many members of his family, had inherited the musical talent of his father, and at the various medical dinners he was always good for two or three excellent songs. He was educated in the University of Edinburgh, took the degrees of M.B., C.M. in 1881, and the degree of M.D. in 1885, when he was awarded a gold medal for his thesis. He had a considerable family practice in the south side of Edinburgh, and was esteemed both by his professional brethren and the public. On May 15th, he was elected Chairman of the South Edinburgh Division of the British Medical Association. He was also a prominent member of the Edinburgh and Leith Medical Practitioners' Association, and a popular member of the Pen and Pencil Club. He had been a Freemason for many years. He leaves a widow and three sons, one of whom is now a student of medicine at Edinburgh University.

OLD St. Mary's men will hear with regret of the sudden death, at the early age of 34, of Dr. WILLIAM FERRIS, who was holding the post of Second Assistant Medical Officer to the Middlesex Asylum, Wandsworth. He was the son of the late William Edward Stiles Ferris, of Donnington Square, Newbury, Berks, and grandson of the late William Ferris, of Milton Manor, Pewsey, Wilts. William Ferris started his medical career at St. Mary's Hospital in 1893. After obtaining the M.R.C.S.Eng., L.R.C.P.Lond., and M.B., B.S.Lond., he was appointed Assistant Medical Officer at the Greenwich Infirmary, and whilst there took the D.P.H. In 1902 he was appointed an Assistant Medical Officer to the Middlesex Asylum, Wandsworth. In 1904 he obtained the M.D.Lond., being the first candidate to take that degree in Psychological Medicine. He was a great favourite with all with whom he came in contact, and was especially beloved by patients and colleagues. His keenness for detail and his methodical ways made many a difficult task appear simple, and he kept himself thoroughly up to date in the modern treatment of the insane. He was good at all sorts of games, especially at football, which he continued to play up to as late as last season. His sudden death, on May 15th, from an attack of double pneumonia, after only five days' illness, will come as a shock to many.

WE regret to record the death of JOHN HODGSON, M.B.Lond., M.R.C.S., L.S.A., formerly of Oldham. Dr. Hodgson was the son of a minister of the Congregational Church. His medical studies were conducted at the Owens College and the Manchester Royal Infirmary, where he held the post of house-physician. Later he acted as medical officer at the Barnes Convalescent Hospital, Cheadle. He commenced practice in Oldham, and was appointed assistant surgeon to the Oldham Infirmary, and in 1898 became Honorary Acting Surgeon. He also held the post of medical officer to the Oldham School Board. He was the first Honorary Secretary of the Oldham Medical Society; he occupied the position for fifteen years, and the prosperity of the society was largely due to the enthusiasm with which he discharged the duties of the office. Failing health compelled Dr. Hodgson in 1905 to resign his position as honorary surgeon to the Oldham Infirmary and to give up practice. He first went to West Kirby and afterwards to Bowdon, and his health greatly improved. About two months before his death, he was appointed medical officer to the Southport Council Schools. He, however, had only held that post about three weeks, when his health broke down, and he died after about a fortnight's illness at his home in Bowdon. He leaves a wife and two daughters to mourn his loss. Dr. Hodgson was universally respected by all with whom he came into contact.

The Services.

ROYAL NAVY MEDICAL SERVICE.

AT the entrance examination for Surgeons in the Royal Navy, completed on May 14th, 32 candidates presented themselves for 15 vacancies. Two gentlemen withdrew 8 were rejected for physical defects, and of the remaining 22, 18 obtained qualifying marks.

The following is the list of successful candidates:

Name.	Qualifications.	Medical School.	Marks.
Hole, K. H.... ...	M.B., B.S.Lond., L.R.C.P., M.R.C.S.	Guy's Hospital.	2,151
Syms, G. F. ...	L.R.C.P., M.R.C.S.	Guy's Hospital.	1,963
Sanders, A. A. ...	M.B., Ch.B.Birm.	Queen's Hospital, Birmingham	1,933
Fitzgerald, M. P....	M.B., B.Ch.R.U.I.	Queen's College, Cork	1,927
Hadwen, J.... ...	M.B., B.S., B.Sc.Lond., L.R.C.P., M.R.C.S.	St. Bartholomew's Hospital	1,914
Briggs, H. F. ...	M.B., Ch.B.Edin.	Edinburgh University	1,900
Jackson, G. A. ...	M.B., B.Ch., B.A.O.	Dublin University	1,734
Miller, W.	M.B., Ch.B.Glasg.	Glasgow University	1,710
Orwin, J. S. ...	M.B., Ch.B.Edin.	Edinburgh University	1,685
Barrett, J.	M.B., B.Ch., B.A.O.R.U.I.	Catholic University, Dublin	1,645
Nichols, H. W. ...	L.R.C.P., M.R.C.S.	Middlesex Hospital	1,638
Roberts, R. P. M...	L.R.C.P., M.R.C.S.	Guy's Hospital	1,505
Malcolm, M. G. ...	M.B., Ch.B.St And.	St. Andrew's Univ.	1,495
Devas, H. C. ...	L.R.C.P., M.R.C.S.	St. Thomas's Hosp.	1,420
Burns, H.	M.B., Ch.B.Edin.	Edinburgh University	1,405

The above-named gentlemen will undergo a course of instruction in special subjects at Haslar Hospital, on the completion of which another examination will be held, and prizes consisting of a gold medal, a silver medal, and three navy regulation pocket cases awarded. The final position on the list will be determined by the combined results of the London and Haslar examinations.

Public Health AND POOR LAW MEDICAL SERVICES.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Borough of Brighouse.—The annual report of Dr. Martin (M.O.H.) shows that the birth-rate of Brighouse for the past year averaged 20.21 per 1,000 and the death-rate 14.3, against rates of 26.5 and 14.7 respectively for the whole country. The zymotic death-rate was much higher than the previous year, due largely to an epidemic of measles which led to the partial closing of six elementary schools, and primarily caused fourteen deaths. There was no small-pox, and very little scarlet fever.

Wallasey Urban District.—Mr. T. W. Naylor Barlow, Medical Officer of the Urban District of Wallasey, near Liverpool, has just published his first annual report for the district, to which he was appointed late in the year 1907. The district is becoming a popular suburb of Liverpool on the west side of the Mersey. It comprises 3,408 acres, and has a population estimated at about 71,000 in the middle of last year. The birth-rate was 24.2 per 1,000, and the death-rate was at the low figure of 12.7. The population is growing with great rapidity, having been only 21,000 in 1881. In view of the expressed opinion of the local medical practitioners the Notification of Births Act has not been adopted. A lady sanitary inspector visits houses in which births have been registered as having taken place and gives advice as to the feeding of the child. It has occasionally been found that the baby had died before the visit, perhaps, Mr. Barlow suggests, from a cause which a little timely advice might have prevented. He reserves his opinion as to the desirability of adopting the Act until he has had further experience of the district. The infantile mortality is exceptionally low—namely, 101 per 1,000—although in 1898 it was 168. Only 1 case of small-pox had occurred since 1904, the patient being a man who was landed from a ship. Energetic measures were taken, including vaccination of contacts, and there was no spread of the disease. Scarlatina was notified 248 times, most of the cases being near the end of the year, and is attributed to introductions from Liverpool and Birkenhead, chiefly as the result of Christmas shopping. The question of return cases is discussed at some length in connexion with 9 cases which might be so classed; 6 of these, however, were apparently not of that nature. Mr. Barlow evidently doubts

whether true return cases are common, and shows that some of them are merely due to coincidence. He also points out that they occur most frequently in the cold months and when the wards are full, and that they are associated with enlarged tonsils and adenoids almost invariably, and most frequently in connexion with children who have been kept a longer time in hospital than usual. They occur very rarely or never in connexion with cases discharged before what is known as the normal period of isolation has elapsed. He believes the existence of rhinitis is the chief reason of the persistence of infection, and does not attach importance to the presence of delayed or prolonged desquamation. He is of opinion that children, as a rule, are kept too long in hospital. It has been the common practice to fix six weeks as the period of infection, probably because desquamation usually continues for about six weeks; but no one who has had a large experience of scarlet fever in hospital now believes the desquamation *per se* has anything to do with infection. Six weeks he thinks is generally too long, but each case must be treated on its own merits. Cases with nasal discharge are kept in indefinitely, but Mr. Barlow doubts the wisdom of this practice since the cases are continually being reinfected. Typhoid fever has diminished greatly during recent years. In the 34 cases that were notified no connexion with sewer and drainage defects could be detected. Measles and whooping-cough, as elsewhere, have been the intractable diseases, and so far offer little hope of being dealt with in the way of prevention. Although the district is mostly newly settled the insanitary property question is not unknown, and twenty-one houses have been presented for demolition, and other property has been made sanitary. The work done has been very creditable for the first year since the appointment of whole-time M.O.H. Mr. Barlow, however, sounds a note of warning against demolishing poor houses too quickly, owing to the difficulty in rehousing the displaced tenants.

Health of Aberavon.—The medical officer of health for Aberavon, Dr. J. A. Jones, in his annual report states that the birth-rate was 39.1 per 1,000 and the death-rate 19.4 per 1,000; infantile mortality-rate was 162 per 1.000 registered births. This figure, he says, is far too high, but in 1899 and 1897 the figures were 253 and 230 respectively. Diarrhoeal diseases alone caused nearly half the deaths among infants, and 24 out of 54 were bottle-fed babies, and he believed that through artificial feeding more children were killed by mistaken kindness, through ignorance, than wilful neglect. Intemperance was also a factor in the increase of infantile mortality, and the prevalence of drinking amongst women was deplorable, and they could not too strongly support State-directed efforts towards lessening the opportunities of getting drink. The council, he urged, should see that the houses of the people were fit to live in, and that the streets should be free from dust and refuse. The town had been placed to much inconvenience and discomfort by the want of a plentiful and pure supply of water. The report was discussed at a meeting of the Town Council held on May 12th. It was decided to call the attention of the County Council and the Neath Rural Council to the matter of the pollution of the river Afan. The surveyor was instructed to see that the floors of new houses were concreted as far as he possibly could. It was explained that the water supply from the Ystradfellte reservoir could not be secured under two and a half years. This matter was referred to the Waterworks Committee. The clerk was asked to write the Margam Urban District Council, suggesting that the two authorities should go in jointly for a dust destructor. As to the infantile mortality, an alderman asked if it was not a fact that a large number of children were fed on tinned milk, and, although 560 samples of fresh milk were taken during the year, not one sample of tinned milk was taken. Dr. Jones said that matter was under the control of the County Council. It was eventually resolved to take samples of all tinned milk sold in the town for analysis, and to circularize mothers and nurses, asking them to abolish feeding bottles with tubes.

URBAN DISTRICT COUNCILS AND THEIR MEDICAL OFFICERS.

FESTINA LENTE writes as follows: An urban district council wishes to change its medical officer on account of his residing out of the district. There are several medical men residing in the district, and the urban district councillors wish to appoint one or other of them. Must the post be advertised? and is the sanction of the Local Government Board necessary for the change to be effected?

*** We are not aware of any general order, rule, or regulation which necessitates the post of medical officer to an urban district council being advertised previous to the appointment being made. When any such appointment has been made by the council, it has to be reported to the Local Government Board and *confirmed* by that Board before being brought into actual operation.

THE thirteenth meeting of the Departmental Committee appointed by the Lord President of the Council to consider the working of the Midwives Act, 1902, was held at the Privy Council Office on May 19th, Mr. Almeric W. FitzRoy, the Clerk of the Council, in the chair. The following witnesses attended: Mr. A. Rivers-Willson, Ph.D., L.S.A., Mr. E. Parker Young, L.S.A., M.R.C.S., Mr. J. Theodore Dodd.

Letters, Notes, and Answers.

BRITISH MEDICAL ASSOCIATION AND BRITISH MEDICAL JOURNAL.

THE offices of the British Medical Association and of the BRITISH MEDICAL JOURNAL are at 429, Strand, London.

COMMUNICATIONS respecting Editorial matters should be addressed to the Editor, 429, Strand, London, W.C.; those concerning business matters, advertisements, non-delivery of the JOURNAL, etc., should be addressed to the Office, 429, Strand, London, W.C.

TELEGRAPHIC ADDRESS.—The telegraphic address of the EDITOR of the BRITISH MEDICAL JOURNAL is *Aitiology, London.* The telegraphic address of the BRITISH MEDICAL JOURNAL is *Articulate, London.*

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2631, Gerrard, EDITOR, BRITISH MEDICAL JOURNAL.
2630, Gerrard, BRITISH MEDICAL ASSOCIATION.
2634, Gerrard, MEDICAL SECRETARY.

ORIGINAL ARTICLES and LETTERS *forwarded for publication are understood to be offered to the* BRITISH MEDICAL JOURNAL *alone unless the contrary be stated.*

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL are requested to communicate with the Office, 429, Strand, W.C., on receipt of proof.

CORRESPONDENTS who wish notice to be taken of their communications should authenticate them with their names—of course not necessarily for publication.

CORRESPONDENTS not answered are requested to look at the Notices to Correspondents of the following week.

MANUSCRIPTS FORWARDED TO THE OFFICE OF THIS JOURNAL CANNOT UNDER ANY CIRCUMSTANCES BE RETURNED.

In order to avoid delay, it is particularly requested that ALL letters on the editorial business of the JOURNAL be addressed to the Editor at the Office of the JOURNAL, and not at his private house.

☞ *Queries, answers, and communications relating to subjects to which special departments of the* BRITISH MEDICAL JOURNAL *are devoted will be found under their respective headings.*

QUERIES.

☞ We would request correspondents who desire to ask questions in this column not to make use of such signatures as "A Member," "A Member B.M.A.," "Enquirer," and so on. By attention to this request much confusion would be avoided.

Correspondents are asked to write upon one side of the paper only.

DR. CAMPBELL (Uley, Gloucestershire) desires to hear of a village in North Italy where a patient with delicate lungs would find shelter from prevailing wind, sunshine, moderate elevation, and good lodgings.

THE CONSCIENCE CLAUSE.

DR. CHISHOLM (Halifax, Nova Scotia) asks: What is the general attitude of the profession towards the Conscience Clause *re* vaccination? Does it tend to increase the number of unvaccinated, or cause much trouble to health boards?

*** (1) The profession generally in this country appears to regard the Conscience Clause as a weak concession on the part of the Legislature, but recognizes that the clause was intended to suppress the martyrdom sought by many anti-vaccinators in order to give prominence to their agitation. (2) During the first ten years the number of exemptions averaged only about 5 per cent. of the births per annum. Last year it was made easier to obtain exemption, and the number of certificates granted was about three times larger than in the previous years. (3) The health boards do not administer the Vaccination Acts. Many medical officers of health have reported their anxiety to the local sanitary authorities, and the provision of adequate accommodation in case of outbreaks of small-pox is already receiving renewed attention. The Conscience Clause does not appear to diminish the number of those applying for vaccination when small-pox is prevalent.

LIP READING AND STAMMERING.

DEAF asks to be referred to a book or books explaining the teaching of lip reading to the deaf; also something on the treatment of stammering.

*** Our correspondent might consult the article entitled The Treatment of Stammering (and Lalling), by Dr. H. G. Langwill, published in the BRITISH MEDICAL JOURNAL, 1901, vol. ii, p. 130. Of books, the following may be found useful: Wyllie's *Disorders of Speech* (London: Simpkin, Marshall, and Co., 1894, 18s.) gives the physiological aspects of the subject, and practical remarks on the treatment of stammering. *A Series of Lessons on Articulation and Lip Reading*, by Richard Elliott, Principal of the Margate Institution for the Deaf (published by the Committee of the Institution, 93, Cannon Street, London, E.C., 2s. 6d.) is a good practical treatise. *Practical Lip Reading*, by E. F. Boultbee (London: Upcott, Gill; New York: Charles Scribner's Sons), would be suitable in cases of adults.

INCOME TAX.

CYMRO'S income is made up as follows: From practice, after paying expenses, £195; rent of land, £5 10s.; total, £200 10s. He pays £49 for life assurance premiums, and has two children under 16 years of age. He asks whether he is liable to pay income tax.

*** Provided that the Budget proposals become law, our correspondent will not be liable. He will be entitled to the following allowances: Abatement, £160; life assurance premiums (one-sixth of total income), £33 10s.; allowance for children (£10 for each), £20; total allowances, £213 10s., which more than covers the amount of his income.

VACCINATOR received in February, 1909, the Government grant for efficient vaccination, it being three years since he received the previous grant. He asks whether the full amount received should be returned for assessment to income tax for the year 1909-10, or whether it should be averaged and the amount spread over the next three years.

*** The appointment of public vaccinator is a public office within the meaning of the Income Tax Act, 1842, and the remuneration received in respect of any such office is taxable under Schedule E on the amount receivable during the current year. This rule, however, is subject to an exception. The profits of any such office which fall under the head of "perquisites," as distinguished from ordinary remuneration, are taxable, either on the amount received in the preceding year or on the average amount received during the three preceding years. The answer therefore turns on the question whether the grant is to be regarded as ordinary remuneration or as a "perquisite" of the office of vaccinator. We incline to the view that it is a "perquisite," and that our correspondent is entitled to average the amount for the purposes of his income-tax return under Schedule E.

ANSWERS.

G. A. D.—The apparatus in question does not appear to differ in any way from the numberless electrical appliances of a similar kind which are advertised, and although in common with most of them it may have a good effect in chance cases, a leading authority in electrical treatment to whom we submitted the inquiry does not recommend it for insomnia.

THE CANARY ISLES.

W.—The Canary Isles are Spanish possessions, and, so far as we are aware, foreign practitioners are subject to the same regulations as in Spain. Nominally these necessitate the passage of exactly the same examinations as those undergone by Spanish students, but the extent to which the regulations are enforced seems to vary considerably from time to time.

LETTERS, NOTES, ETC.

A CASE OF CALENTURE.

MR. E. KNIGHT (Gravesend) writes: In an article on calenture which appeared in the BRITISH MEDICAL JOURNAL of February 27th, under the heading of Nova et Vetera, I stated that, according to old writers, those who suffer from this malady at sea become delirious, and, imagining it to be green fields, desire to leap into it. Also I remarked that I had been unable to find out from seafarers that they have any knowledge of a fever at sea producing this peculiar form of delirium. Since then a reader of the JOURNAL, who was formerly a ship's surgeon, has kindly sent me particulars of a case of "calenture" which came under his own observation. About twelve years ago a young man was found climbing over the rail of a vessel sailing in the tropics, preparatory to jumping into the sea. In explanation of his conduct he said that he saw his sister in a green field gathering flowers, and was climbing over the gate to go to her. He was of temperate habits, and it was not long before he recovered his mental equilibrium.

A QUESTION OF LIFE OR DEATH.

DR. BALDWIN (Bathurst, Gambia, West Africa) writes: The following incident may be entertaining to some readers as a sample of the intelligence of the native male nurses employed in some of our West African hospital wards: Recently a man was admitted with a badly-fractured skull and lacerated brain. I instructed the nurse on night duty to let me know every morning at 6.30 if the man was alive or dead, as in these hot places we make *post-mortem* examinations as quickly after death as possible. The nurse followed my instructions carefully. The patient died in the evening and I made the *post-mortem* examination about 11 o'clock at night. As I was leaving the mortuary the nurse came up to me and said: "Please, sir, shall I call you at 6.30 to-morrow morning to say if the man is alive or dead?"

AN A POSTERIORI ARGUMENT FOR PSYCHOTHERAPY.

WE find the following instructive story in an unexpected place, that organ of "occult and mystical research," *Light*. Our contemporary cites the story because it is recorded in "a very serious—in fact, an eminently religious—American journal." It is said that Dr. Weir Mitchell gave a hysterical young lady a book on psychotherapy, with the advice to study it and cure herself. About a fortnight later the famous neurologist received a note from his patient in which she said: "That book is a prize. The other day I had an attack of the old sort—laughing and crying together—and the trouble was brought to an end in two minutes simply by the use of the book. Mamma spanked me with it." This case opens up a new use for psychotherapeutic and Christian Science literature. The books might be bound with a view to the special mode of application indicated.

A NOVELTY IN GYNAECOLOGICAL NOMENCLATURE.

IN the May number of the *London Hospital Gazette* it is stated that a short time ago a patient attended an out-patient department with a card bearing the legend "Virginitis." It may easily be believed that an inflamed virginity is a troublesome affection, but until Mrs. Eddy has fully revealed her method of propagation of the human race in a spiritual fashion, there is always a hope that it may find a natural cure.

"IN THE NAME OF THE PROPHET—SOAP!"

MESSRS. JOHN KNIGHT, Limited, write: Our attention has been called to the leader in your issue of May 7th, under the above heading, and as we should much regret if by publishing the letter referred to we have unwittingly trespassed, we consider it only right that we should inform your readers that although the letter was quite unsolicited by us and we considered it contained Dr. Forbes-Ross's permission to make whatever use we cared to of it, we withdrew its publication on hearing from Dr. Forbes-Ross that he did not intend it for publication, and this we did all the more readily on becoming aware of the views expressed by the President of the Royal College of Surgeons contained in a letter Dr. Forbes-Ross sent us for perusal. We need hardly add that we much regret any inconvenience that may have been caused through a misapprehension on our part.

*** In addition to the cleansing virtues which it may be presumed to possess, the soap manufactured by Messrs. John Knight, Limited, would seem to have the peculiar property of producing, both in those who make it and in some at least of those who use it, a state of innocence which in these days of villainy, as Falstaff says, is as rare as it is enviable.

QUININE IN SYPHILIS.

T. A. P. writes: I wonder whether it has occurred to any other medical practitioner as it has to me that since quinine is a deadly poison to the malarial parasite there is a presumption that it would be also to another protozoal parasite, the *Spirochaeta pallida*. I have seen no reference to such a treatment of syphilis, and am not aware whether any trial of it has been made. I have not much opportunity myself of giving it a fair trial. Since it occurred to me I have had only one opportunity of administering it in syphilis, and that to a case already showing secondary symptoms. I did not dare to withhold mercury, but gave concurrently 2 grains of quinine three times daily. The case, which promised to be severe, ran an exceptionally favourable course, and I was particularly struck with the absence of cachexia and a positive improvement of the patient's complexion. I should like to see a recent case kept in a condition of cinchonism as long as it could be borne and the subsequent history watched. I venture to make this crude suggestion in the hope that some one more favourably situated than I am may be led to give it a fair trial.

THE EQUALIZATION OF COEFFICIENTS.

THE following sample of solution of a problem in pathological algebra has been sent to us by a lady at Oxford:

I happened to overhear the following, and thought you might like to use it in your paper:

Younger Sister: "Yes, I *do* like him; I almost think I would like to marry him."

Elder Sister: "My dear, *No!* Why, his mother died of consumption."

Younger Sister: "Well, SO DID MINE."

SCALE OF CHARGES FOR ADVERTISEMENTS IN THE BRITISH MEDICAL JOURNAL.

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